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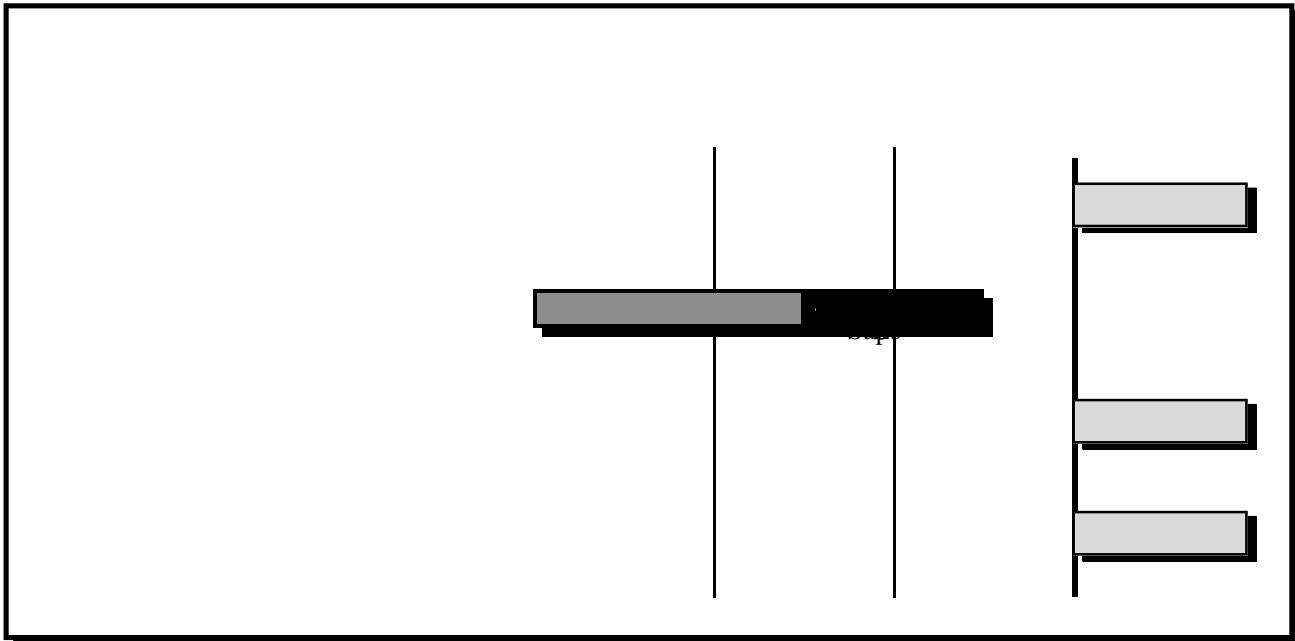
I. Introduction:

This consensus proposal of the Electronic Business Transaction (EBT) Working Group accomplishes the Working Group's objective of establishing practical, operational, electronic standards for the transaction of business between Competitive Suppliers and Distribution Companies as of March 1, 1998. The task of the Working Group as defined at the hearings on the Terms and Conditions was twofold: (1) to develop the required set of electronic commerce standards desired by the Competitive Suppliers; and (2) to balance the needs of the Competitive Suppliers with the constraints of the current infrastructures within each Distribution Company. This proposal achieves that balance, and establishes standard transactions that can be tested and made operational by March 1, 1998. These standard transactions meet immediate and short-term needs while remaining flexible enough to accommodate the gradual adoption of regional and national standards as they are further developed.

We believe the results set forth in this proposal reflect the high level of commitment and energy expended by the Distribution Companies and Competitive Suppliers who devoted substantial amounts of time and resources in bringing this first phase of the development of electronic standards to consensus. At the same time, recognizing that the processes outlined in this proposal are new to all stakeholders, the Working Group is unanimous in recommending that a continuing effort through 1999 be supported by the Department to ensure the prompt and efficient resolution of issues which are certain to arise during the implementation stage of these new protocols. A plan for the continuation of the Working Group is also outlined in this proposal.

Below is a high-level Gantt chart depicting just a few of the major milestones that industry participants will be required to accomplish before they are ready to proceed, operationally, with the electronic commerce required for customer choice.

Implementation Timeline



Some points to consider:

- This schedule reflects technology changes only. There are many other significant business impacts (e.g. call center training, payment processing, ISO relations).
- The time required for a new Competitive Supplier to develop their computer systems may be substantially longer than the three months depicted.
- The timeline does not reflect many other major tasks such as the selection of an EDI vendor or the negotiation of Distribution Company service agreements.
- Distribution Company systems development work will continue beyond 3/1/98. The initial level of system support will likely not be adequate for long-term operations.

II. Summary:

The following sections of the proposal provide a description of the transaction sets and business rules, the record layouts and data formats, the transmission methodology, and the testing and training requirements to implement the standards.

Section III. Trading Partner Business Relationships. This section summarizes the relationships between the Customers, Competitive Suppliers and the Distribution Companies at the start of retail competition. It is intended to foster the development of a mutual understanding of those relationships. A more thorough understanding will come from a reading of the Electric Industry Restructuring Act, the Electric Industry Restructuring Regulations designated as 220 C.M.R. 11.00 et seq. , and the Terms and Conditions for Competitive Suppliers.

Section IV. Transactions. This section defines a set of electronic business transactions corresponding to the business relationships described in Section III. It also includes a description of the business rules that govern the use of the transactions.

Section V. Data Formats. This section presents the approach for grouping the business transactions into four standard record formats. The method for packaging the transactions for transmission is also discussed.

Section VI. Electronic Transmission. This section describes the approach for sending and receiving the transactions between the Competitive Suppliers and the Distribution Companies. The approach defines standardization of initial methodology and also offers a path for a transition into future technologies, and regional and national standards as they emerge.

Section VII. Computer Operations Considerations. This section discusses the operational issues (both manual and automated) that, while primarily technical in nature, can have a significant effect on the efficiency and consistency of business processes.

Section VIII. Training and Testing. This section offers an overview of the joint Distribution Company training program for newly registered Suppliers. In addition, the methodology for testing the readiness of trading partners to conduct electronic commerce using the Electronic Business Transactions is discussed.

Section IX. Process Continuation. This section offers an approach for continuing the working group, taking advantage of the experience gained in the new marketplace.

III. Trading Partner Business Relationships:

In order to establish a set of mutually agreed upon standards, there first must be a mutual understanding of the business relationships to which they will be applied in accordance with the Department's regulations orders and tariffs. The following represents the current understanding of these relationships. A more thorough understanding will come from a reading of the Electric Industry Restructuring Act, the Electricity Industry Restructuring Regulations, and the Terms and Conditions for Competitive Suppliers.

Customer, Distribution Company and Competitive Supplier Relationships

Customer:

Provides appropriate authorization to a Competitive Supplier for release of historical consumption information from the Distribution company.

Selects one Competitive Supplier for enrollment per distribution account.

Provides the applicable account information to the Supplier.

Selects a billing option.

Provides the appropriate authorization for the Supplier to enroll the Customer.

Competitive Supplier:

Obtains license from the Department of Telecommunications and Energy.

Obtains the appropriate authorization from the Customer for enrollment.

Obtains the appropriate authorization from the Customer for historical consumption information to be released by the Distribution Company.

Obtains the applicable information from the Customer, required to enroll the Customer on the Distribution Company's records as receiving generation service from the Supplier.

(Only a Supplier can establish competitive generation service for a Customer with the Distribution Company.)

Submits Enrollment after the three-day Customer rescission period has passed.

Sends the applicable information electronically to the Distribution Company for Customer enrollment, changes, or termination of generation service.

Provides the Distribution Company with billing rates and pricing information for the Complete billing option or renders its own bills for generation service.

Maintains its own set of records to reconcile information from the Distribution Company related to Customer payments.

Participates in training and electronic systems testing of the electronic business transactions prior to customer enrollment.

Identifies both a business and a technical contact to facilitate inter-business communications.

Contacts each Distribution Company for company specific information (e.g. rate structures).

Enters into a service agreement with each Distribution Company.

Responsible for all VAN charges related to Electronic Business Transactions.

Applies for Low Income Reimbursement in accordance with EBT protocols.

Distribution Company:

Provides Customers with a list of licensed Suppliers as directed by the Department.

Provides the Customer's appropriate historical usage information to the Competitive Supplier upon request.

Schedules normal cycle meter-read dates and reads meters.

Renders bills to the Customer as required by Customer/Supplier relationship.

Maintains records of required data related to the current Customer/Supplier services.

Provides the Supplier with Billing and Usage information required by the agreed upon billing option.

Provides the Supplier with payment information and the funds collected when using the Complete billing option.

Performs daily and monthly aggregate load estimate for each Supplier and reports estimates to ISO New England, Inc.

Identifies both a business and a technical contact to facilitate inter-business communications.

Maintains an Internet World Wide Web site, containing various standard documents, available for access by trading partners (e.g. tariffs, class average load shapes, scheduled cycle meter-read dates, relevant computer operations schedule).

Only the Distribution Company can terminate (i.e. physically disconnect) electric service to the Customer.

Guarantees payment of Low Income generation service as defined in 220 CMR 11.04 (5) according to the EBT protocols.

IV. Transactions:**Guiding Principles for Transactions**

The following principles guided the development of the EBT Standards:

- Minimize the number of transactions.
- Reduce confusion for the Customer.
- Protect the Customer's right to choose a new Supplier.
- Use electronic solutions rather than paper-based ones.
- Minimize exception and manual processing.
- Control costs, increase efficiency, speed and accuracy.

Electronic Business Transaction Set

The tables below contain the business flows and the electronic transactions that will govern the implementation of the Terms and Conditions for Competitive Suppliers.

For these transactions to be accepted, the Competitive Supplier will have complied with the state mandated registration requirements, will have participated in training, will have successfully completed tests of electronic transactions and equipment, will have obtained the initial authorization of the Customer for enrollment, and executed a service agreement with the appropriate Distribution Company.

Required Transactions

EBT	Business Processes	Number	Flow	Data Format
Account Administration	Enroll Customer	1	NS→DC	I-Enroll
	Change Enrollment Detail	2	ES→DC	I-Change
	Change Enrollment Detail	3	DC→ES	I-Change
	Successful Enrollment	4	DC→NS	I-Success
	Customer Move	5	DC→ES	I-Move
	Error	6	DC→NS,ES	I-Error
	Customer Drops Supplier	7	DC→OS	I-Cust.-Drop
	Supplier Drops Customer	8	ES→DC	I-Supp.-Drop
	Confirm Drop Date	9	DC→ES	I-Confirm
Usage/Billing	Customer Usage Information - (Passthrough Option)	10	DC→ ES	II-Customer Usage
	Customer Usage and Billing Information - (Complete Option)	11	DC→ ES	II-Customer Usage/ Billing
Payments & Adjustments	Customer Payment/Adjustment	12	DC→ ES, OS	III- Payment/ Adjustment

DC, Distribution Company; ES, Existing Supplier; OS, Old Supplier; NS, New Supplier

Electronic-Mail Transaction

Settlement	Aggregate Load Estimate	13	DC→ES	IV-Load
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Business Rules

Below is a description of the business rules for the electronic transactions that will govern the implementation of the Terms and Conditions for Competitive Suppliers.

Format I Transactions - Account Administration

- 1. Enroll Customer:** The Competitive Supplier notifies a Distribution Company to Enroll a Customer (**transaction #1**). The general rule is that such enrollment will be made to coincide with the Customer's normal cycle meter-read date. A Supplier must transmit the Enrollment transaction no less than two (2) business days prior to the scheduled cycle meter-read date or the enrollment will be deferred to the following read date.

Public Aggregator: At the time of enrollment with the Distribution Company, the Competitive Supplier will identify those customers that are receiving Generation Service pursuant to an agreement with a Public Aggregator.

Multiple Enrollments: In the vast majority of cases, it is anticipated that a Customer will select a Competitive Supplier, the Competitive Supplier will allow any Customer right of rescission period to lapse, and will enroll the Customer with the Distribution Company, as outlined above. It is foreseeable, however, that there may be cases where the Customer selects more than one Supplier and that those Suppliers will attempt to enroll the same Customer during the same billing cycle. In the absence of a clear rule, the Distribution Company has no way of determining Customer selection and which Competitive Supplier arrangement to effectuate through the processing of the transaction.

To address this concern, the Working Group is unanimous finding that the first enrollment transaction accepted during the enrollment period preclude acceptance of any other enrollment during that period. This rule would be implemented as follows:

The enrollment period commences two business days prior to the Customer's scheduled cycle meter-read date and ends two business days prior to the Customer's next scheduled cycle meter-read date. The Competitive Supplier holds an enrollment until any applicable right of rescission has lapsed.

The Distribution Company processes the first enrollment transaction received by a Competitive Supplier during the enrollment period. Once an enrollment is in force, any other enrollment transaction for that Customer, during the enrollment period is rejected (but may be resubmitted by the Supplier for processing in the next period).

This rule accomplishes the following:

- Affords the Customer the quickest means of enrolling with the Supplier while recognizing any applicable right of rescission.

- Reduces the likelihood of gaming as Suppliers will be motivated to transmit enrollments at the earliest possible moment. Suppliers will have the rescission period to pre-process their information and to ensure it will meet the validation requirements of the Distribution Company's systems.
- Affords a better opportunity for scheduling power on the grid.

Multiple Services: Where more than one distribution service is assigned to a Customer account, the Competitive Supplier may submit one enrollment transaction or one enrollment for each service. When a Supplier successfully enrolls an account with multiple services, a successful enrollment transaction will be sent to the Supplier for each service enrolled. Because of the nature of these accounts, if one enrollment transaction is rejected due to a data error, then the enrollment of the entire account must be rejected.

Historical Data: The Distribution Company will provide twelve months' of a Customer's historical usage data to a Competitive Supplier upon request, provided that the Competitive Supplier has received the appropriate authorization, in accordance with the provisions established in Section 3C.7 of the Terms and Conditions for Competitive Suppliers. If there is less than twelve month's historical usage data available, the Distribution Company will provide any historical usage data that is available.

2. **Change Enrollment Detail:** The Competitive Supplier notifies the Distribution Company to Change Enrollment Detail (e.g. Supplier Billing Rates) (**transaction #2**) for a specific Customer. The general rule is that the changes would be effective on the day of the notification or the next cycle meter read date, as appropriate.

The Distribution Company may also send the Competitive Supplier a Change Enrollment transaction (e.g. meter change) (**transaction #3**).

1. **Successful Enrollment:** The Distribution Company notifies the Supplier that the requested Enrollment was successful by sending a notification back to the Supplier (**transaction #4**). This notification will include the projected effective date and the Customer's billing address.

Customer Switching Supplier: When a Customer changes Supplier, it is only necessary for the new Supplier to send an Enrollment transaction; if successful, a Successful Enrollment transaction is returned to the new Supplier and a Customer Drops Supplier transaction is sent to the old Supplier. The Customer does not need to be concerned about dropping the old Supplier. That activity will be done automatically.

2. **Customer Move:** A Customer normally will contact a customer service representative of their Distribution Company when they are moving. If the Customer is moving within the service territory, then the customer service representative will initiate action that will result in continuation of service with the same Supplier at the new address, unless the Customer indicates that they wish to return to Standard Offer (if applicable) or Default Service.

For this to occur, the following transactions are initiated:

- A. The Customer is automatically enrolled with the Supplier at the new address and a **Customer Move (transaction #5)** is sent to the Supplier with the Customer's new Distribution Company account number and the Customer's billing address.
- B. A Customer Usage Information transaction or a Customer Usage and Billing transaction is sent to the Supplier with the last information available about the Customer at the old address.

Within a Service Territory: If a Customer is moving within a given service territory and desires to continue competitive supply, but with a different Supplier, they can simply authorize the other Supplier to Enroll them with the Distribution Company

Outside of a Service Territory: Suppliers may not necessarily make the same product offerings to all Customers in different Distribution Company service territories. Because the compatibility of such services cannot be determined electronically, when a Customer moves outside of a given service territory the Supplier will be sent final Customer Usage or Customer Billing and Usage Information to allow the completion of the customer accounting process.

- 5. **Error Transaction:** If an Enrollment, Change or Supplier Drops Customer transaction is rejected by the Distribution Company, an **Error (transaction #6)** will be returned to the Supplier identifying the rejected record and the reason(s) for the rejection.
- 6. **Customer Drops Supplier:** When a Customer Enrolls with a New Supplier this (**transaction #7**) is transmitted with the projected effective date, to the Old Supplier. The Old Supplier would also be sent final Customer Usage or Customer Billing and Usage Information to allow the completion of the customer accounting process.

Customer Initiated Drop: If a Customer desires to drop a Supplier other than through enrolling with a new Supplier, the Customer may inform the Distribution Company or the Competitive Supplier.

If the Customer informs the Distribution Company directly, generation service will be terminated within two business days for residential customers; for other customers, generation service shall be terminated on the date of the Customer's next scheduled meter read. The Distribution Company will send a Customer Drops Supplier transaction to the Competitive Supplier.

In this case, the Distribution Company will move the Customer to Default Service or Standard Offer according to the Department's regulations, orders and tariffs. The Customer may have another Supplier enroll them on their next scheduled cycle meter-read date.

If the Customer informs the Competitive Supplier directly, the Competitive Supplier shall send a Supplier Drops Customer transaction to the Distribution Company (see below).

- 7. **Supplier Drops Customer:** The Supplier notifies the Distribution Company to discontinue generation service for a Customer (**transaction #8**). The rule is that the termination will be made to coincide with the Customer's normal cycle meter-read date. After that date, the Customer will

automatically receive Default Service or Standard Offer according to the Department's regulations, orders and tariffs until they enroll with a new Supplier.

8. **Confirm Drop Date B** When transaction #8 (see above) is used, then a confirmation (**transaction #9**) is returned to the Supplier to confirm the projected effective date of the termination of generation service from that Supplier.

Format II Transactions B Usage/Billing

9. **Customer Usage Information/Customer Usage and Billing Information:** After the meter reading data is obtained, the Distribution Company will provide the Customer's Supplier with consumption and billing information (**transaction #11**) in the case that the Complete Billing Option was chosen. If the Passthrough Billing Option were chosen, only the consumption information will be sent (**transaction #10**).

When a Customer moves or is no longer a Customer of record, the Distribution Company renders a Final Bill to the Customer, at that location. At that time the Distribution Company sends the Supplier the final Usage, or Billing and Usage, information as appropriate. This process is also followed if the Distribution Company discontinues distribution service to a Customer in accordance with provisions set forth in the Terms and Conditions for Distribution Service.

As described in Section VII, validated billing and usage information will be transmitted to Suppliers by noon of the day following the Distribution Company's processing cycle.

Arrears Processing: Within the billing information, the Suppliers arrears will be calculated using the same rules that the Distribution Company uses.

Whenever a Customer switches Supplier there is a chance that there will be outstanding arrears for the old Supplier.

If the Complete billing option had been chosen for the old Supplier, the Distribution Company will carry the old Supplier's arrears on the bill for two billing cycles. Then, an adjustment transaction (transaction # 12) will be used to settle the account with the Supplier.

It is the Supplier's responsibility to pursue credit and collection activity on the outstanding arrears after the Distribution Company has changed the Customer's Supplier, even if the Complete billing option had been in effect when the Customer was current.

As the Distribution Company collects money from the Customer, and that money is determined to be applied to the Supplier portion of the bill, it will be applied against the oldest Supplier's outstanding arrears first.

Bill Cancellation: When it is determined that a consumption-based adjustment to a customer bill is necessary, the Distribution Company will notify the Supplier(s) of the cancellation of the original bill by sending the Format II transaction with a cancellation activity code. Numeric fields will be sent as originally billed, i.e. not negated, since the activity code determines the purpose of the transaction. The Supplier can then apply the amounts to his own system as needed.

For Passthrough billing, the Usage transaction will be sent so that the Supplier will know the amount of consumption being canceled. For Complete billing, the Distribution Company will cancel the bill in question, and provide the Supplier(s) with a Billing transaction indicating the consumption and dollars that have been canceled.

Rebilling of Canceled Amounts: If a rebill of the canceled billing is appropriate, the Distribution Company will notify the Supplier(s) of the corrected consumption amounts being billed by sending a Format II transaction. For Complete billing, the Supplier portion will be recalculated based on the corrected consumption, and the corrected dollar amounts sent as well.

If the cancellation and/or rebill covers a period of historical consumption in which the customer's accounts/receivable information for the Supplier is no longer available (i.e. beyond two scheduled bills following the last bill with the Supplier, and a Format III Write-off Adjustment has been sent to the Supplier), the Distribution Company will send only the canceled and/or rebilled usage to the Supplier, even if the customer had originally been receiving a Complete bill.

Format III Transactions B Payment and Adjustments (Complete Billing Option Only)

10. **Customer Payment/Adjustments:** Each business day, information about recorded Customers' payments and adjustments is sent to those Customers' Suppliers (**transaction #12**). Recorded payments set up the trigger to release the funds to those Suppliers.

Format IV Transaction B Settlement

11. The **Aggregate Load Estimate (transaction #13)** record will be sent electronically to those Suppliers that request it. As the daily load estimate information is made available to ISO New England, it will be sent to those Suppliers.

Off-Cycle Changes

Off-cycle changes will have an impact in two situations - when a Customer moves, or notifies the Distribution Company of their desire to drop a Supplier.

The Distribution Companies are already staffed, and have business processes in place, to allow Customers to move off-cycle. This will continue to be the norm.

There is unanimous agreement within the Working Group that as a general business rule, all other activities should take place on the scheduled cycle meter-read date. However, we recognize an exception to this rule when a residential Customer wants to drop a Supplier off-cycle. This should be allowed, as described above (see Discussion under paragraph 6 above).

Conclusion

We note that these business rules are intended to resolve most questions about the business relationships. However, there are many unusual and irregular situations that will occur in the normal course of business (e.g. administrative account changes or adding a service to a multi-service account). There are so many, in fact, that they cannot be completely enumerated.

While these situations are extraordinary, they are nonetheless important. For example, a Distribution Company's administrative change may have the effect of final billing a Customer with competitive generation supply.

In many of these cases the rules do not apply directly. The Working Group makes the explicit assumption that the necessary communication between the Customer and the Distribution Company will be extended to the Supplier, making the three parties aware of the appropriate actions that must be taken. Further, given that the proper communication between the parties has taken place, the Working Group feels confident that the transaction set will be sufficient, in the short run, to accommodate these anomalies.

As was recognized in the Introduction, work must continue on these standards as the marketplace evolves and as the parties gain experience.

V. Data Formats:

A key question, addressed by the Working Group was how to package the data in the records (i.e. the transactions) to transmit them over the telecommunications channel.

Among other features, that package, commonly referred to as "envelope", should enclose and secure the transactions for transmission, allow for error recovery, and make some form of date and time stamp available. The choices range from having the trading partners in Massachusetts develop a "Massachusetts envelope", or investing in a generic, industry solution.

The EBT standards Working Group reviewed the technologies and services available for packaging standardized transaction formats for transmission over public and private networks. A unanimous decision was made to use the electronic commerce industry's Electronic Data Interchange (EDI) implementation guidelines.

The EDI format will use existing ANSI ASC X.12 transactions which are tailored for use in the exchange of information between Distribution Companies and Suppliers. The group has "mapped" the fields we have defined in Appendix A of this report to the existing segments of the EDI transaction sets.

Time Line:

The following is offered for new market entrants, as an overview of the work required for implementing Electronic Commerce. The Working Group recognizes that each company's implementation team will develop the actual implementation plan. We note that implementing the Electronic Commerce standards requires at least a three month focused effort.

Tasks:

1. Acquire a copy of the Massachusetts EBT Implementation Guidelines and attend technical training. The EDI translation software vendor will also need the Implementation Guidelines to map the Massachusetts transactions to the translation software.
2. Select and install any required computer equipment and EDI translation software. Assure that the translation software supports the required versions of the EDI transactions. This could take up to a month working with the software vendor.
3. Configure selected translation software to interpret the transactions sent and received by individual company's Customer and Billing systems. This customization could take up to two months. It must include the programming needed to acquire and match the appropriate time and date stamp to the transactions.
4. Finally, the pre-production testing of the translation software, application interfaces and data exchange may take up to three weeks.

VI. Electronic Transmission:

Standard Approach

The EBT standards Working Group has reviewed the standards, technologies and services available for defining transaction sets and transport mechanisms. We have also considered developments taking place in the rapidly emerging, restructured electricity markets in neighboring New England states and other regions of the country.

There is general agreement among the participants that transaction formats should be standardized so that all parties can develop the business processes and automated systems needed to facilitate the required set of electronic business transactions.

It is less certain that a single means of transferring the data should be mandated for use by all parties. Successful implementation of both Value Added Network (VAN) and Internet file transfer systems are presently in use in New Hampshire, Massachusetts and Rhode Island. In addition, other methods, such as dedicated, leased phone line connections, dial-up phone connections, and other computer-to-computer file transfer mechanisms are available, and could be practical and economical transfer mechanisms for certain scenarios.

For any transfer method to be allowed, it must be shown that it meets certain minimum criteria in the following key areas:

- Security/encryption of transactions and customer information
- Proof of transmission and receipt (non-repudiation)
- Reliability
- Data and file integrity
- Network performance and availability
- Recoverability and archiving of data.

The Working Group adopted a Value Added Network (VAN) as the default transport medium for the market. VAN's are a reliable and proven technology, and they include the services in the key areas identified above. However, *other methods will be permitted* if there is bilateral agreement between market participants to implement and support such methods, and provided they meet minimum requirements in the key areas listed above.

VII. Computer Operations Considerations

Other sections of this document address essential standards for business transactions, data formats and electronic transmission of data. This section deals with the operational issues (both manual and automated) that, while primarily technical in nature, can have a significant effect on the efficiency and consistency of business processes. The Working Group identified the following principles for computer operations:

- Processing of data must be reliable, predictable, accurate and efficient
- Transaction processing must be equitable and verifiable
- Trading partners' daily operational schedules should be accommodated
- The entire process must be designed to detect and report errors without intervention
- There must be a clear assignment of responsibility

Computer operations issues have been categorized into the following topics:

1. Scheduling
2. File Handling
3. Error Handling
4. Recovery

Scheduling

Each trading partner will have daily schedules that should be accommodated to the extent possible. Operating schedules cannot be standardized because of differences in daily transaction volumes, processing techniques, technology, etc. At the same time, there should be a baseline schedule that all trading partners can rely on that does not place an undue burden on any trading partner.

The Working Group reviewed the daily computer operation schedules of the Distribution Companies in order to develop a baseline schedule. The Working group adopted a common schedule pertaining to a normal business day it is as follows:

- Supplier transactions must be ready for Distribution Company processing by noon each work-day.
- Transactions received by noon of the current business day will be responded to by noon the following business day.
- Validated billing and usage transactions will be transmitted to Suppliers by noon of the day following the corresponding Distribution Company processing cycle.
- Distribution Company output transactions should be ready for Supplier processing by noon each business day.
- Refer to Exhibit A for a description of the customer enrollment process.

Each Distribution Company will publish their daily operation schedule as a guideline to Suppliers. The schedule should include cycle reading and billing dates, processing "work days" and "no work" days (i.e., holidays, weekends).

File Handling

The operational guidelines pertaining to file handling are based on the business rules defined elsewhere in this document concerning transaction standards and data transmission. It should be considered that changes to those business rules could impact file handling.

Exhibit B depicts a representative process flow. The Working Group agreed that:

- Distribution Companies will attempt to process all files sent by Competitive Supplier(s) unless specific action is taken by the Competitive Supplier(s) to avert processing (i.e., delete files, replace files). Refer to the Error Handling section for additional information.
- The recipient of a file (Competitive Supplier or Distribution Company) is responsible for reviewing (editing) file contents to prevent adverse impact on the recipient's operations or systems (data errors, duplicate files, illogical conditions, etc.). The recipient of a file has the right to reject the file in whole or in part due to content or protocol errors. In the event that a file is rejected, the detail transactions will not be processed.
- The creator of a file is responsible for the accuracy and authenticity of the contents.
- All data exchanges will be done in a pre-established manner to ensure data security and integrity (refer to "Electronic Transmission" section).
- Each file will have one recipient, and should contain transactions intended only for that recipient. A file may contain multiple transactions of the same or different type for the same customer account.
- Files will be processed by the recipient according to the recipient's operating schedule. Distribution Companies will sweep the input queue at least once each business day and will process all files that are available by the cut-off and up to the time of the last sweep.
- Files will be processed in chronological order. To ensure accurate and consistent posting of individual transactions, Distribution Companies will validate them in physical sequence as presented on the input files. Errors and confirmations (e.g., Successful Enrollments) will be returned to Suppliers no later than the first business day following the processing of the transactions by the Distribution Companies.
- Daily transaction exchange between Competitive Suppliers and Distribution Companies will generally not be limited in terms of the total number of files or transactions processed on a daily basis.

Error Handling

Each trading partner must establish two points of contact: one for operations problems, and another for business issues. Each trading partner should establish appropriate procedures for problem resolution such that problems are identified, documented, properly classified and resolved in a timely manner.

Because access to and manipulation of data must be controlled, the creator of a file is responsible for correcting any errors in the data. No transaction that contains error(s) will be accepted.

Recovery

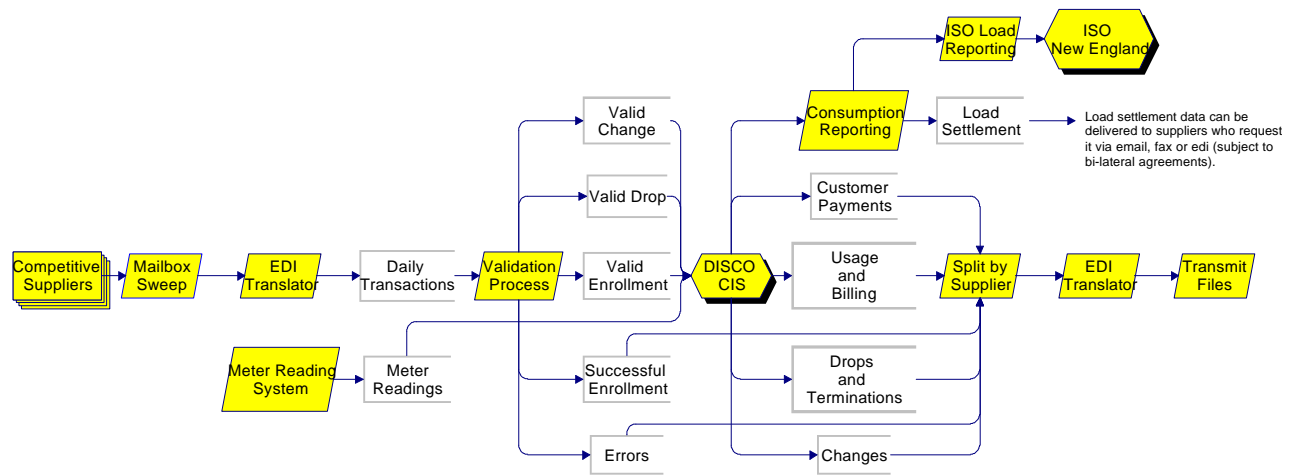
A sound operation includes data recovery procedures that can be invoked in the event of unexpected situations that require transactions to be recreated or resubmitted for any reason. The primary purpose of these recovery procedures is to protect the originator of a file from damages related to loss of the data.

No matter what specific transmission method is used, the originator needs procedures so a file can be recreated and/or retransmitted or simply omitted from the job stream (unreadable data, invalid header, file control error, etc.). Supplier will have to coordinate with the Distribution Company in order to omit a file (dictated by Distribution Company operational schedules); other conditions are addressed in the "File Handling" section.

The Working Group agreed that it is the responsibility of the originator of a file to maintain the ability to recover or recreate the data. In lieu of regulations that may specify data retention requirements, the specific recovery guidelines are left up to each trading partner. The minimum recovery criteria based on the normal file creation schedule is recommended to be:

- Files created daily, recover or recreate up to 10 files
- Files created weekly, recover or recreate up to 5 files
- Files created monthly, recover or recreate up to 3 files

Exhibit A: Enrollment

Exhibit B: Electronic Business Transaction Process Flow

This diagram is for example only. It depicts the essential components (in terms of Supplier interfaces) of a theoretical, Distribution Company, computer operations, processing cycle. The complete process occurs over a 24 hour period (noon to noon) and includes:

- Daily input and validation of Supplier input transactions (Enrollments, etc.)
- Distribution Company billing cycle ("Distribution Company CIS")
- ISO New England load estimating and reporting
- Daily output to the Suppliers (Successful Enrollments, Usage and Billing, Customer Payments, Errors, Load Settlement, etc.).

VIII. Training and Testing

Among other requirements, a new Supplier must have the capability and readiness to participate in the generation marketplace using the electronic business transactions and standards described in this proposal. Any Supplier that cannot meet the electronic commerce requirements of the marketplace would slow down the overall development of Retail Choice.

To assist in the solution of this potential problem, the Working Group developed a training framework that will be delivered by rotating voluntary resources from both the Distribution Companies and the Suppliers. In addition the Working Group developed a framework for testing the electronic systems. The purpose of this test is to verify that the Supplier is capable and ready to comply with the data transfer standards specified in this document.

Further, the Department has included in its regulations, a Supplier licensing requirement that each new Competitive Supplier present certification of its completion of the jointly presented training program and Competitive Suppliers must complete testing prior to the first Enrollment transaction being submitted to a Distribution Company.

Training Framework

Given the importance of understanding the operation and communication requirements of the new market infrastructure, the MDTE has required, that attendance at an introductory training session, "Supplier Workshop", be required as part of the Supplier Licensing Requirements. The facility and Guidebook production will be rotated among the Distribution Companies.

Supplier Workshops are structured in such a manner as to maximize information exchange, maintain consistency between sessions, and minimize resource impact.

Workshops will be offered on a consistent schedule, the first day Wednesday of every month, provided that Supplier participants have registered with the MDTE for the session one week prior to the offered date. Each Workshop will be offered jointly by the utilities, with representation by all the utilities. This will minimize inconsistencies between different training sessions as well as eliminate duplicate and burdensome requirements to both prepare and attend individual training sessions. It would be beneficial if a Department staff person attends each workshop to both provide the Regulatory Introduction as well as to answer any regulatory questions. Attendance by the ISO-NE, if available, would also be beneficial to answer any wholesale related questions.

These one-day Supplier workshops are structured to provide an introduction to the regulatory and operational requirements to participate in Retail Access in Massachusetts. An overview will be provided in the morning to introduce the regulatory and operational framework. This session is targeted at both business and technical personnel. Concurrent technical sessions will

be offered in the afternoon to discuss implementation procedures. A more specific agenda is included in Appendix C B Training Standards. Presentation schedules may vary slightly between host utilities or presentation duration. The 1998 Training Schedule is posted on each Utilities' website.

In addition to the Supplier workshops, each Supplier will be provided with a Massachusetts Supplier Guide. This guide will contain all the general information necessary to participate in retail access in the Commonwealth. A sample Table of Contents and Statement of Purpose are also included in the Training Appendix. These Guides will be registered to a Supplier so that a mailing list can be established for updates.

Testing Requirements

Prior to providing power supply service to any retail Customer in the market area, a Supplier of competitive services must demonstrate its capability to electronically send (receive) data to (from) each Distribution Company in whose service area it intends to offer competitive services. Successful testing must be completed prior to the first enrollment transaction being submitted to the Distribution Company.

The purpose of the testing is to verify that the Supplier is capable of complying with the data transfer standards specified in this document and has the necessary software and hardware required to send, receive, and translate the standard transactions required to do business in the market.

Compliance testing for Competitive Suppliers will be accomplished by exchanging a standard set of test transactions (Appendix D - Testing Standards) with **each** Distribution Company with which it intends to do business. The Testing Standards provide for a two week notice in order for the Supplier and a Distribution Company to set up the test.

The test utilizes transactions from the standard transaction set described herein, and verification of 100% error free transmission, receipt, and translation of the data by both Supplier and Distribution Company is required. An approved data transfer system will be used for the data exchange tests.

Test Completion

Upon *successful* completion of the test, (and any other registration requirements) the Distribution Company will activate the Supplier on their production business system.

Updates to Test Standards

The details of the test procedures, data scenarios and transactions may vary over time. The version in effect when this report was issued is presented in Appendix D B Test Standards.

IX. Work Group Continuation:

The Working Group has accomplished many of its original goals. However, with the issuance of the Department's Terms and Conditions on December 31, 1997 and the Rules and Regulations 220 CMR 11:00 on February 20, 1998 clarifying previous assumptions, the Working Group has work still due. For example, 1) the Customer historical information subgroup will develop a uniform solution for distributing Customer historical information by September 1, 1998, 2) the Retail Access Fees subgroup will pursue a consensus on uniform fees that would be charged for services by all Distribution Companies 3) and the Working Group will submit a proposed procedure for implementing the Low Income payment guarantee as required in 11:04(5)(e).

Additionally, standards and technologies are being adopted, in other states within our region of the country and also in other regions of the country, that merit observation and possible adoption.

For these reasons, and others, the Working Group urges the Department to recognize that a continuing effort is required to develop these EBT Standards. Its composition can remain open to the Distribution Companies, the Competitive Suppliers, and new entrants to the market (e.g. Customers, aggregators)

They can also help resolve some issues that have been left aside as non-critical by the current group:

- Integrate ideas from new members into the standards,
- Coordinate timing for changes in any of the protocols,
- Continue to train the "old" Suppliers when changes to the protocol are made,
- Revisit the use of the Internet as a transmission solution,

The Working Group will meet once a month, unless modifications to Retail Access warrant more frequent meetings. New chairpersons will be chosen every six months.

Appendix A B Open Access Record Formats

Format I - ADMINISTRATIVE

<u>DESCRIPTION</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record indicator	1	A/N
2) Supplier account number	20	A/N
3) Distribution Company account number	20	A/N
4) Distribution Company Customer name	4	A/N
5) Effective date of service and load requirements - assigned by Distribution Company	8	DATE
6) Billing option for the account - Pass Through or Complete	1	A/N
7) Distribution Company rate code	3	A/N
8) Supplier Rate Code	3	A/N
9) Supplier pricing structure maintained by Distribution Company	7	A/N
10) Type of service indicator	1	A/N
11) Service identifier	10	A/N
12) Completion Status	30	A/N
13) Billing cycle	2	A/N
14) Indication of applicability of Sales Tax for 'Complete' Supplier billing	1	A/N
15) Off Cycle Reading Indicator	1	A/N
16) Off Cycle Reading Date - requires approval of Distribution Company	8	DATE

17) New Distribution Company account number	20	A/N
18) New Distribution Company Customer name	4	A/N
19) New Distribution Company service identifier	10	A/N

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

<u>DESCRIPTION</u>	<u>SIZE</u>	<u>TYPE</u>
20) Bill To Address 1	55	A/N
21) Bill To Address 2	55	A/N
22) Bill To City	30	A/N
23) Bill To State	2	A/N
24) Bill To Postal Code	9	A/N
25) Bill To Country	2	A/N
26) Special Identifier	4	A/N

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction
DATE = CCYYMMDD A/N = Alphanumeric

Format I - ENROLL CUSTOMER (Transaction 1)*From Supplier to Distribution Company*

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record indicator	MA	1	A/N
2) Supplier account number	MA	20	A/N
3) Distribution Company account number	MA	20	A/N
4) Distribution Company Customer name	MA	4	A/N
5) Effective date of service and load requirements - assigned by Distribution Company	N/A		
6) Billing option for the account - Pass Through or Complete	MA	1	A/N
7) Distribution Company rate code	N/A		
8) Supplier Rate Code	OP #	3	A/N
9) Supplier pricing structure maintained by Distribution Company	OP #	7	A/N
10) Type of service indicator	OP	1	A/N
11) Service identifier	OP	10	A/N
12) Completion status	N/A		
13) Billing cycle	N/A		
14) Indication of applicability of Sales Tax for 'Complete' Supplier billing	OP	1	A/N
15) Off Cycle Reading Indicator	N/A		
16) Off Cycle Reading Date - requires approval of Distribution Company	N/A		

17) New Distribution Company account number	N/A
18) New Distribution Company Customer name	N/A
19) New Distribution Company service identifier	N/A

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

Both fields become Mandatory when Complete Billing Option selected

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
20) Bill To Address 1	N/A		
21) Bill To Address 2	N/A		
22) Bill To City	N/A		
23) Bill To State	N/A		
24) Bill To Postal Code	N/A		
25) Bill To Country	N/A		
26) Special Identifier	OP	4	A/N

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

Transaction 1 - Enroll Customer - OPTIONAL FIELD USE

<u>Field Number/Name</u>	<u>Reason for Option</u>	<u>Expected Use</u>
8. Supplier Rate Code		dependent on Billing Option value required for Complete Billing Option
9. Supplier Pricing Structure		dependent on Billing Option value required for Complete Billing Option
10. Type of Service Indicator		company specific Invalid for:
Massachusetts Electric Nantucket Electric Used by:		Boston Edison Cambridge Electric Commonwealth Electric Required by: Eastern Edison Western Massachusetts Electric
11. Service identifier		company specific Invalid for:
Massachusetts Electric Nantucket Electric		Used by: Boston Edison Cambridge Electric Commonwealth Electric Eastern Edison Western Massachusetts Electric
14. Sales Tax Indicator		company specific Invalid for: Boston Edison Eastern Edison Massachusetts Electric Nantucket Electric Required by: Cambridge Electric Commonwealth Electric

Allowed by:
Western Massachusetts Electric

Format I B CHANGE ENROLLMENT DETAIL - SUPPLIER DATA (Transaction 2)*From Supplier to Distribution Company*

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record indicator	MA	1	A/N
2) Supplier account number	MA	20	A/N
3) Distribution Company account number	MA	20	A/N
4) Distribution Company Customer name	MA	4	A/N
5) Effective date of service and load requirements - assigned by Distribution Company	N/A		
6) Billing option for the account - Pass Through or Complete	OP	1	A/N
7) Distribution Company rate code	N/A		
8) Supplier Rate Code	OP #	3	A/N
9) Supplier pricing structure maintained by Distribution Company	OP #	7	A/N
10) Type of service indicator	OP	1	A/N
11) Service identifier	OP	10	A/N
12) Completion status	N/A		
13) Billing cycle	N/A		
14) Indication of applicability of Sales Tax for 'Complete' Supplier billing	OP	1	A/N
15) Off Cycle Reading Indicator	N/A		
16) Off Cycle Reading Date - requires approval of Distribution Company	N/A		

17)	New Distribution Company account number	N/A
18)	New Distribution Company Customer name	N/A
19)	New Distribution Company service identifier	N/A

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

Both fields become Mandatory when Complete Billing Option selected

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
20) Bill To Address 1	N/A		
21) Bill To Address 2	N/A		
22) Bill To City	N/A		
23) Bill To State	N/A		
24) Bill To Postal Code	N/A		
25) Bill To Country	N/A		
26) Special Identifier	OP	4	A/N

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

Transaction 2 - Change Enrollment Detail - Supplier Data - OPTIONAL FIELD USE

<u>Field Number/Name</u>	<u>Reason for Option</u>	<u>Expected Use</u>
6. Billing Option		change notification required only if changed
8. Supplier Rate Code		dependent on Billing Option value required for Complete Billing Option
9. Supplier Pricing Structure		dependent on Billing Option value required for Complete Billing Option
10. Type of Service Indicator		company specific Invalid for:
Massachusetts Electric Nantucket Electric		Used by: Boston Edison Cambridge Electric Commonwealth Electric Eastern Edison Western Massachusetts Electric
11. Service identifier		company specific Invalid for:
Massachusetts Electric Nantucket Electric		Used by: Boston Edison Cambridge Electric Commonwealth Electric Eastern Edison Western Massachusetts Electric
14. Sales Tax Indicator		

Company specific

Change data required by:

Cambridge Electric

Commonwealth Electric

Not Used by:

Western Massachusetts Electric

Format I - CHANGE ENROLLMENT DETAIL - DISTRIBUTION CO. DATA (Transaction 3)*From Distribution Company to Supplier*

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record indicator	MA	1	A/N
2) Supplier account number	MA	20	A/N
3) Distribution Company account number	MA	20	A/N
4) Distribution Company Customer name	MA	4	A/N
5) Effective date of service and load requirements - assigned by Distribution Company	N/A		
6) Billing option for the account - Pass Through or Complete	N/A		
7) Distribution Company rate code	OP	3	A/N
8) Supplier Rate Code	N/A		
9) Supplier pricing structure maintained by Distribution Company	N/A		
10) Type of service indicator	OP	1	A/N
11) Service identifier	OP	10	A/N
12) Completion status	N/A		
13) Billing cycle	OP	2	A/N
14) Indication of applicability of Sales Tax for 'Complete' Supplier billing	OP	1	A/N
15) Off Cycle Reading Indicator	N/A		

16) Off Cycle Reading Date - requires approval of Distribution Company	N/A		
17) New Distribution Company account number	OP	20	A/N
18) New Distribution Company Customer name	OP	4	A/N
19) New Distribution Company service identifier	OP	10	A/N

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
20) Bill To Address 1	OP	55	A/N
21) Bill To Address 2	OP	55	A/N
22) Bill To City	OP	30	A/N
23) Bill To State	OP	2	A/N
24) Bill To Postal Code	OP	9	A/N
25) Bill To Country	OP	2	A/N
26) Special Identifier	OP	4	A/N

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

Transaction 3 - Change Enrollment Detail - Distribution Co. Data - OPTIONAL FIELD USE

<u>Field Number/Name</u>	<u>Reason for Option</u>	<u>Expected Use</u>
7. Distribution Co Rate Code	company specific, used if Disco rate is changed	Sent if changed by: Boston Edison Eastern Edison Massachusetts Electric Nantucket Electric
10. Type of Service Indicator		company specific Sent by: Boston Edison Cambridge Electric Commonwealth Electric Eastern Edison Western Massachusetts Electric
11. Service identifier	Type is not A (all)	company specific, sent if Service Sent if needed by: Boston Edison Cambridge Electric Commonwealth Electric Eastern Edison Western Massachusetts Electric
13. Billing Cycle		change notification Required if customer billing cycle changes due to reroute, etc.
14. Sales Tax Indicator	status changes	company specific, sent if Disco tax Sent if changed by: Boston Edison Eastern Edison Massachusetts Electric Nantucket Electric
17. New Disco Account No.	rerouting occurs; exceptional situations can occur also	company specific, usually when Sent if changed by: Boston Edison Eastern Edison Massachusetts Electric Nantucket Electric Rare Exceptions Sent by: Cambridge Electric Commonwealth Electric Western Massachusetts Electric
18. New Disco Customer Name	company specific, sent if customer name changes	Sent if changed by: Boston Edison Eastern Edison Massachusetts Electric

19. New Service identifier

meter exchange

Nantucket Electric

company specific; most often a
Sent if changed by:

Boston Edison

Cambridge Electric
Commonwealth Electric
Eastern Edison
Western Massachusetts Electric

Format I - SUCCESSFUL ENROLLMENT (Transaction 4)*From Distribution Company to Supplier*

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record indicator	MA	1	A/N
2) Supplier account number	MA	20	A/N
3) Distribution Company account number	MA	20	A/N
4) Distribution Company Customer name	MA	4	A/N
5) Effective date of service and load requirements - assigned by Distribution Company	MA	8	DATE
6) Billing option for the account - Pass Through or Complete	MA	1	A/N
7) Distribution Company rate code	OP	3	A/N
8) Supplier Rate Code	OP #	3	A/N
9) Supplier pricing structure maintained by Distribution Company	OP #	7	A/N
10) Type of service indicator	OP	1	A/N
11) Service identifier	OP	10	A/N
12) Completion status	MA	30	A/N
13) Billing cycle	MA	2	A/N
14) Indication of applicability of Sales Tax for 'Complete' Supplier billing	OP	1	A/N
15) Off Cycle Reading Indicator	N/A		

16) Off Cycle Reading Date - requires approval of Distribution Company	N/A
17) New Distribution Company account number	N/A
18) New Distribution Company Customer name	N/A
19) New Distribution Company service identifier	N/A

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

Both fields become Mandatory when Complete Billing Option Selected

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
20) Bill To Address 1	MA	55	A/N
21) Bill To Address 2	MA	55	A/N
22) Bill To City	MA	30	A/N
23) Bill To State	MA	2	A/N
24) Bill To Postal Code	MA	9	A/N
25) Bill To Country	MA	2	A/N
26) Special identifier	OP	4	A/N

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

Transaction 4 - Successful Enrollment - OPTIONAL FIELD USE

<u>Field Number/Name</u>	<u>Reason for Option</u>	<u>Expected Use</u>
7. Distribution Co Rate Code		company specific Returned by: Boston Edison Eastern Edison Massachusetts Electric Nantucket Electric
8. Supplier Rate Code		dependent on Billing Option value returned as sent for
Complete Billing Option		
9. Supplier Pricing Structure		dependent on Billing Option value returned as sent for
Complete Billing Option		
10. Type of Service Indicator		company specific Returned by: Boston Edison Cambridge Electric Commonwealth Electric Eastern Edison Western Massachusetts Electric Not provided by: Massachusetts Electric Nantucket Electric
11. Service identifier		company specific Returned by: Boston Edison Cambridge Electric Commonwealth Electric Eastern Edison Western Massachusetts Electric Not provided by: Massachusetts Electric Nantucket Electric
14. Sales Tax Indicator		company specific Returned by: Boston Edison Eastern Edison

Massachusetts Electric
Nantucket Electric
Western Massachusetts Electric
Returned as sent by:
Cambridge Electric
Commonwealth Electric

Format I - CUSTOMER MOVE (Transaction 5)*From Distribution Company to Supplier*

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record indicator	MA	1	A/N
2) Supplier account number	MA	20	A/N
3) Distribution Company account number	MA	20	A/N
4) Distribution Company Customer name	MA	4	A/N
5) Effective date of service and load requirements - assigned by Distribution Company	MA	8	DATE
6) Billing option for the account - Pass Through or Complete	MA	1	A/N
7) Distribution Company rate code	OP	3	A/N
8) Supplier Rate Code	MA	3	A/N
9) Supplier pricing structure maintained by Distribution Company	MA	7	A/N
10) Type of service indicator	OP	1	A/N
11) Service identifier	OP	10	A/N
12) Completion status	N/A		
13) Billing cycle	MA	2	A/N
14) Indication of applicability of Sales Tax for 'Complete' Supplier billing	OP	1	A/N
15) Off Cycle Reading Indicator	OP *	1	A/N
16) Off Cycle Reading Date - requires approval of Distribution Company	OP *	8	DATE

17) New Distribution Company account number	MA	20	A/N
18) New Distribution Company Customer name	OP	4	A/N
19) New Distribution Company service identifier	OP	10	A/N

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

* Both fields become Mandatory when Off Cycle Enrollment requested if supported
by the Distribution Company

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
20) Bill To Address 1	MA	55	A/N
21) Bill To Address 2	MA	55	A/N
22) Bill To City	MA	30	A/N
23) Bill To State	MA	2	A/N
24) Bill To Postal Code	MA	9	A/N
25) Bill To Country	OP	2	A/N
26) Special identifier	OP	4	A/N

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

Transaction 5 - Customer Move - OPTIONAL FIELD USE

<u>Field Number/Name</u>	<u>Reason for Option</u>	<u>Expected Use</u>
7. Distribution Co Rate Code		company specific Used by: Boston Edison Eastern Edison Massachusetts Electric Nantucket Electric
8. Supplier Rate Code		dependent on Billing Option value returned as sent for
Complete Billing Option		
9. Supplier Pricing Structure		dependent on Billing Option value returned as sent for
Complete Billing Option		
10. Type of Service Indicator		company specific Sent by: Boston Edison Cambridge Electric Commonwealth Electric Eastern Edison Western Massachusetts Electric
11. Service identifier		company specific Sent by: Boston Edison Cambridge Electric Commonwealth Electric Eastern Edison Western Massachusetts Electric
14. Sales Tax Indicator		complete billing option only Sent as old account was being billed
15. Off-cycle Read Indicator		company specific Sent if needed by: Cambridge Electric Commonwealth Electric

16. Off-cycle Read Date

Eastern Edison

company specific
Sent if needed by:
Cambridge Electric
Commonwealth Electric
Eastern Edison

17. New Disco Account Number New account notification

Account number at new
service location

Format I - ERROR RECORD (Transaction 6)*From Distribution Company to Supplier*

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record indicator	MA	1	A/N
2) Supplier account number	MA	20	A/N
3) Distribution Company account number	MA	20	A/N
4) Distribution Company Customer name	MA	4	A/N
5) Effective date of service and load requirements - assigned by Distribution Company	N/A		
6) Billing option for the account - Pass Through or Complete	N/A		
7) Distribution Company rate code	N/A		
8) Supplier Rate Code	N/A		
9) Supplier pricing structure maintained by Distribution Company	N/A		
10) Type of service indicator	N/A		
11) Service identifier	N/A		
12) Completion status	MA	30	A/N
13) Billing cycle	N/A		
14) Indication of applicability of Sales Tax for 'Complete' Supplier billing	N/A		
15) Off Cycle Reading Indicator	N/A		
16) Off Cycle Reading Date - requires approval of Distribution Company	N/A		

17) New Distribution Company account number	N/A
18) New Distribution Company Customer name	N/A
19) New Distribution Company service identifier	N/A

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
20) Bill To Address 1	N/A		
21) Bill To Address 2	N/A		
22) Bill To City	N/A		
23) Bill To State	N/A		
24) Bill To Postal Code	N/A		
25) Bill To Country	N/A		
26) Special Identifier	N/A		

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction
DATE = CCYYMMDD A/N = Alphanumeric

Transaction 6 - Error Record - OPTIONAL FIELD USE

No Optional Fields

Format I - CUSTOMER DROPS SUPPLIER (Transaction 7)*From Distribution Company to Supplier*

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record indicator	MA	1	A/N
2) Supplier account number	MA	20	A/N
3) Distribution Company account number	MA	20	A/N
4) Distribution Company Customer name	MA	4	A/N
5) Effective date of service and load requirements - assigned by Distribution Company	MA	8	DATE
6) Billing option for the account - Pass Through or Complete	N/A		
7) Distribution Company rate code	OP	3	A/N
8) Supplier Rate Code	N/A		
9) Supplier pricing structure maintained by Distribution Company	N/A		
10) Type of service indicator	N/A		
11) Service identifier	N/A		
12) Completion status	N/A		
13) Billing cycle	N/A		
14) Indication of applicability of Sales Tax for 'Complete' Supplier billing	N/A		
15) Off Cycle Reading Indicator	N/A		
16) Off Cycle Reading Date - requires approval of Distribution Company	N/A		

17) New Distribution Company account number	N/A
18) New Distribution Company Customer name	N/A
19) New Distribution Company service identifier	N/A

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
20) Bill To Address 1	N/A		
21) Bill To Address 2	N/A		
22) Bill To City	N/A		
23) Bill To State	N/A		
24) Bill To Postal Code	N/A		
25) Bill To Country	N/A		
26) Special Identifier	N/A		

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction
DATE = CCYYMMDD A/N = Alphanumeric

Transaction 7 - Customer Drops Supplier - OPTIONAL FIELD USE

<u>Field Number/Name</u>	<u>Reason for Option</u>	<u>Expected Use</u>
7. Distribution Co Rate Code	Company specific	Used by: Boston Edison Eastern Edison Massachusetts Electric Nantucket Electric

Format I - SUPPLIER DROPS CUSTOMER (Transaction 8)*From Supplier to Distribution Company*

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record indicator	MA	1	A/N
2) Supplier account number	MA	20	A/N
3) Distribution Company account number	MA	20	A/N
4) Distribution Company Customer name	MA	4	A/N
5) Effective date of service and load requirements - assigned by Distribution Company	N/A		
6) Billing option for the account - Pass Through or Complete	N/A		
7) Distribution Company rate code	N/A		
8) Supplier Rate Code	N/A		
9) Supplier pricing structure maintained by Distribution Company	N/A		
10) Type of service indicator	N/A		
11) Service identifier	N/A		
12) Completion status	N/A		
13) Billing cycle	N/A		
14) Indication of applicability of Sales Tax for 'Complete' Supplier billing	N/A		
15) Off Cycle Reading Indicator	N/A		
16) Off Cycle Reading Date - requires approval of Distribution Company	N/A		

17) New Distribution Company account number	N/A
18) New Distribution Company Customer name	N/A
19) New Distribution Company service identifier	N/A

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
20) Bill To Address 1	N/A		
21) Bill To Address 2	N/A		
22) Bill To City	N/A		
23) Bill To State	N/A		
24) Bill To Postal Code	N/A		
25) Bill To Country	N/A		
26) Special Identifier	N/A		

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction
DATE = CCYYMMDD A/N = Alphanumeric

Transaction 8 - Supplier Drops Customer - OPTIONAL FIELD USE

<u>Field Number/Name</u>	<u>Reason for Option</u>	<u>Expected Use</u>
15. Off-cycle Read Indicator	only	Company specific; customer request Allowed by: Cambridge Electric Commonwealth Electric Eastern Edison
16. Off-cycle Read Date	only	Company specific; customer request Allowed by: Cambridge Electric Commonwealth Electric Eastern Edison

Format I - CONFIRMATION of CUSTOMER DROP DATE (Transaction 9)*From Distribution Company to Supplier*

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record indicator	MA	1	A/N
2) Supplier account number	MA	20	A/N
3) Distribution Company account number	MA	20	A/N
4) Distribution Company Customer name	MA	4	A/N
5) Effective date of service and load requirements - assigned by Distribution Company	MA	8	DATE
6) Billing option for the account - Pass Through or Complete	N/A		
7) Distribution Company rate code	OP	3	A/N
8) Supplier Rate Code	N/A		
9) Supplier pricing structure maintained by Distribution Company	N/A		
10) Type of service indicator	N/A		
11) Service identifier	N/A		
12) Completion status	MA	30	A/N
13) Billing cycle	N/A		
14) Indication of applicability of Sales Tax for 'Complete' Supplier billing	N/A		
15) Off Cycle Reading Indicator	MA	1	A/N
16) Off Cycle Reading Date - requires approval of Distribution Company	MA	8	DATE

17) New Distribution Company account number	N/A
18) New Distribution Company Customer name	N/A
19) New Distribution Company service identifier	N/A

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = YYYYMMDD A/N = Alphanumeric

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
20) Bill To Address 1	N/A		
21) Bill To Address 2	N/A		
22) Bill To City	N/A		
23) Bill To State	N/A		
24) Bill To Postal Code	N/A		
25) Bill To Country	N/A		
26) Special Identifier	N/A		

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction
DATE = YYYYMMDD A/N = Alphanumeric

Transaction 9 - Confirmation of Customer Drop Date - OPTIONAL FIELD USE

<u>Field Number/Name</u>	<u>Reason for Option</u>	<u>Expected Use</u>
15. Off-cycle Read Indicator		Company specific; customer request
	only	Allowed by: Cambridge Electric Commonwealth Electric Eastern Edison
16. Off-cycle Read Date		Company specific; customer request
	only	Allowed by: Cambridge Electric Commonwealth Electric Eastern Edison

Format II - USAGE & BILLING

<u>DESCRIPTION</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record indicator	1	A/N
2) Supplier account number	20	A/N
3) Distribution Company account number	20	A/N
4) Supplier rate code	3	A/N
5) Type of service indicator	1	A/N
6) Service identifier	10	A/N
7) Billing option for the account - Pass Through or Complete	1	A/N
8) Activity Code	2	A/N
9) Supplier pricing structure maintained by Distribution Company	7	A/N
10) Current read date	8	DATE
11) Previous read date	8	DATE
12) Primary metering indicator	1	A/N
13) Peak or Total kilowatt hour usage	9	N0
14) Peak or Highest kW demand	6	N1
15) Peak kva demand	6	N1
16) Off peak kilowatt hour usage	9	N0
17) Off peak kW demand	6	N1

18) Off peak kva demand

6

N1

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric Nx = Numeric data with implied decimal point where "x" indicates the number of places to the right of the decimal

<u>DESCRIPTION</u>	<u>SIZE</u>	<u>TYPE</u>
19) Shoulder kilowatt hour usage	9	N0
20) Shoulder kW demand	6	N1
21) Shoulder kva demand	6	N1
22) Demand value used by Distribution Company for billing	6	N1
23) Number of non-metered units	4	N0

THE FOLLOWING FIELDS ARE FOR COMPLETE BILLING OPTION

24) Billing cycle	2	A/N
25) Billing date	8	DATE
26) Current amount	11	N2
27) Current peak amount	11	N2
28) Current off peak amount	11	N2
29) Current shoulder amount	11	N2
30) Current demand charges	11	N2
31) Current Customer charge	11	N2
32) Current sales tax amount	11	N2
33) Arrears interest *	11	N2
34) Supplier arrears *	11	N2
35) Total amount due Supplier *	11	N2

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric Nx = Numeric data with implied decimal point where "x" indicates the number of places to the right of the decimal

* Must appear on the last detail record **only** for an account

Format II - CUSTOMER USAGE INFORMATION (Transaction 10)*From Distribution Company to Supplier*

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record indicator	MA	1	A/N
2) Supplier account number	MA	20	A/N
3) Distribution Company account number	MA	20	A/N
4) Supplier rate code	N/A		
5) Type of service indicator	OP	1	A/N
6) Service identifier	OP	10	A/N
7) Billing option for the account - Pass Through or Complete	MA	1	A/N
8) Activity Code	MA	2	A/N
9) Supplier pricing structure maintained by Distribution Company	N/A		
10) Current read date	MA	8	DATE
11) Previous read date	MA	8	DATE
12) Primary metering indicator	OP	1	A/N
13) Peak or Total kilowatt hour usage	MA	9	N0
14) Peak or Highest kW Demand	OP	6	N1
15) Peak kva demand	OP	6	N1
16) Off peak kilowatt hour usage	OP	9	N0

17) Off peak kW demand	OP	6	N1
18) Off peak kva demand	OP	6	N1

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric Nx = Numeric data with implied decimal point where "x" indicates the number of places to the right of the decimal

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
19) Shoulder kilowatt hour usage	OP	9	N0
20) Shoulder kW demand	OP	6	N1
21) Shoulder kva demand	OP	6	N1
22) Demand value used by Distribution Company for billing	OP	6	N1
23) Number of non-metered units	OP	4	N0

THE FOLLOWING FIELDS ARE FOR COMPLETE BILLING OPTION

24) Billing cycle	N/A
25) Billing date	N/A
26) Current amount	N/A
27) Current peak amount	N/A
28) Current off peak amount	N/A
29) Current shoulder amount	N/A
30) Current demand charges	N/A
31) Current Customer charge	N/A
32) Current sales tax amount	N/A
33) Arrears interest	N/A
34) Supplier arrears	N/A
35) Total amount due Supplier	N/A

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric Nx = Numeric data with implied decimal point where "x" indicates the number of places to the right of the decimal

Transaction 10 - Customer Usage Information - OPTIONAL FIELD USE

<u>Field Number/Name</u>	<u>Reason for Option</u>	<u>Expected Use</u>
5. Type of Service Indicator		<p>If used, is company specific</p> <p>Used by:</p> <p>Boston Edison</p> <p>Cambridge Electric</p> <p>Commonwealth Electric</p> <p>Eastern Edison</p> <p>Western Massachusetts Electric</p>
6. Service identifier		<p>If used, is company specific</p> <p>Used by:</p> <p>Boston Edison</p> <p>Cambridge Electric</p> <p>Commonwealth Electric</p> <p>Eastern Edison</p> <p>Western Massachusetts Electric</p>
12. Primary Metering		customer/company dependent
Indicator		<p>Sent if customer qualifies</p> <p>for discount by:</p> <p>Boston Edison</p> <p>Cambridge Electric</p> <p>Commonwealth Electric</p> <p>Eastern Edison</p> <p>Massachusetts Electric</p> <p>Nantucket Electric</p> <p>Western Massachusetts Electric</p>
14. Peak/Highest kW demand		<p>metering dependent</p> <p>Sent if demand is measured/billed in kilowatts</p>
15. Peak kva demand		<p>metering dependent</p> <p>Sent if demand is measured/billed in kilovolt-amperes</p>
16. Off-peak kWh usage		<p>metering dependent</p> <p>Sent if off peak kWh is measured/billed</p>
17. Off peak kW demand		metering dependent

	Sent if off peak kW demand is measured/billed
18 Off-peak kva demand	metering dependent Sent if off peak kva demand is measured/billed
19. Shoulder kWh usage	metering dependent Sent if shoulder kWh is measured/billed Cambridge Electric/ Commonwealth Electric only
20. Shoulder kW demand	metering dependent Sent if shoulder kW demand is measured/billed Cambridge Electric/ Commonwealth Electric only

<u>Field Number/Name</u>	<u>Reason for Option</u>	<u>Expected Use</u>
21. Shoulder kva demand		metering dependent Sent if shoulder kva demand is measured/billed Cambridge Electric/ Commonwealth Electric only
22. Demand Billing Value		metering dependent Sent if Disco billed demand
23. No. non-metered units		service type dependent Sent for lighting or non-metered device billing entities or accounts

Format II - CUSTOMER USAGE and BILLING INFORMATION (Transaction 11)*From Distribution Company to Supplier*

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record indicator	MA	1	A/N
2) Supplier account number	MA	20	A/N
3) Distribution Company account number	MA	20	A/N
4) Supplier rate code	MA	3	A/N
5) Type of service indicator	OP	1	A/N
6) Service identifier	OP	10	A/N
7) Billing option for the account - Pass Through or Complete	MA	1	A/N
8) Activity Code	MA	2	A/N
9) Supplier pricing structure maintained by Distribution Company	MA	7	A/N
10) Current read date	MA	8	DATE
11) Previous read date	MA	8	DATE
12) Primary metering indicator	OP	1	A/N
13) Peak or Total kilowatt hour usage	MA	9	N0
14) Peak or Highest kW demand	OP	6	N1
15) Peak kva demand	OP	6	N1
16) Off peak kilowatt hour usage	OP	9	N0

17) Off peak kW demand	OP	6	N1
18) Off peak kva demand	OP	6	N1

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric Nx = Numeric data with implied decimal point where "x" indicates the number of places to the right of the decimal

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
19) Shoulder kilowatt hour usage	OP	9	N0
20) Shoulder kW demand	OP	6	N1
21) Shoulder kva demand	OP	6	N1
22) Demand value used by Distribution Company for billing	OP	6	N1
23) Number of non-metered units	OP	4	N0

THE FOLLOWING FIELDS ARE FOR COMPLETE BILLING OPTION

24) Billing cycle	MA	2	A/N
25) Billing date	MA	8	DATE
26) Current amount	MA	11	N2
27) Current peak amount	OP	11	N2
28) Current off peak amount	OP	11	N2
29) Current shoulder amount	OP	11	N2
30) Current demand charges	OP	11	N2
31) Current Customer charge	OP	11	N2
32) Current sales tax amount	OP	11	N2
33) Arrears interest *	OP	11	N2
34) Supplier arrears *	OP	11	N2
35) Total amount due Supplier *	MA	11	N2

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = YYYYMMDD A/N = Alphanumeric Nx = Numeric data with implied decimal point where "x" indicates the number of places to the right of the decimal

* Must appear on the last detail record **only** for an account

Transaction 11 - Customer Usage/Billing Information - OPTIONAL FIELD USE

<u>Field Number/Name</u>	<u>Reason for Option</u>	<u>Expected Use</u>
5. Type of Service Indicator		If used, is company specific Used by: Boston Edison Cambridge Electric Commonwealth Electric Eastern Edison Western Massachusetts Electric
6. Service ID		If used, is company specific Used by: Boston Edison Cambridge Electric Commonwealth Electric Eastern Edison Western Massachusetts Electric
12. Primary Metering		customer/company dependent
Indicator		Sent if customer qualifies for discount by: Boston Edison Cambridge Electric Commonwealth Electric Eastern Edison Massachusetts Electric Nantucket Electric
14. Peak/Highest kW demand		metering dependent Sent if demand is measured/billed in kilowatts
15. Peak kva demand		metering dependent Sent if demand is measured/billed in kilovolt-amperes
16. Off-peak kWh usage		metering dependent Sent if off peak kWh is measured/billed
17. Off -peak kW demand		metering dependent Sent if off peak kW demand is measured/billed

18. Off-peak kva demand

metering dependent
Sent if off peak kva demand is
measured/billed

19. Shoulder kWh usage

metering dependent
Sent if shoulder kWh is measured/billed
Cambridge Electric/
Commonwealth Electric only

20. Shoulder kW demand

metering dependent
Sent if shoulder kW demand is
measured/billed
Cambridge Electric/
Commonwealth Electric only

<u>Field Number/Name</u>	<u>Reason for Option</u>	<u>Expected Use</u>
21. Shoulder kva demand		metering dependent Sent if shoulder kva demand is measured/billed Cambridge Electric/ Commonwealth Electric only
22. Demand Billing Value		metering dependent Sent if Disco billed demand
23. No. non-metered units		service type dependent Sent for lighting or non-metered device billing entities or accounts
27. Current Peak Amount		metering/rate dependent Sent if peak usage is measured/billed separately
28. Current Off Peak Amount		metering/rate dependent Sent if off peak usage is measured/billed separately
29. Current Shoulder Amount		metering/rate dependent Sent if shoulder usage is measured/billed separately Cambridge Electric/ Commonwealth Electric only
30. Current Demand Charges		metering/rate dependent Sent if demand has been measured/billed
31. Current Customer Charge		rate dependent Sent if rate structure includes a customer charge
32. Current Sales Tax Amount		dependent on Sales Tax Indicator Sent if sales tax has been billed
33. Arrears Interest		

34. Supplier Arrears

unpaid

per supplier
Sent if billed per supplier instructions

per supplier account open balance
Sent if prior balance is

Format III - PAYMENTS & ADJUSTMENTS

<u>DESCRIPTION</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record indicator	1	A/N
2) Supplier account number	20	A/N
3) Distribution Company account number	20	A/N
4) Payment/Adjustment type	3	A/N
5) Payment/Adjustment posting date	8	DATE
6) Payment/Adjustment amount	11	N2

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric Nx = Numeric data with implied
decimal point where "x" indicates the number of places to the right of the decimal

Format III - CUSTOMER PAYMENTS/ADJUSTMENTS (Transaction 12)*From Distribution Company to Supplier*

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record indicator	MA	1	A/N
2) Supplier account number	MA	20	A/N
3) Distribution Company account number	MA	20	A/N
4) Payment/Adjustment type	MA	3	A/N
5) Payment/Adjustment posting date	MA	8	DATE
6) Payment/Adjustment amount	MA	11	N2

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction
DATE = CCYYMMDD A/N = Alphanumeric Nx = Numeric data with implied
decimal point where "x" indicates the number of places to the right of the decimal

Transaction 12 - Payments and Adjustments - OPTIONAL FIELD USE

No optional fields

Format IV - LOAD SETTLEMENT

<u>DESCRIPTION</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record Indicator	1	A/N
2) Settlement Function	1	A/N
3) Load Date	8	DATE
4) Supplier Hourly Loads (Total)	192	A/N

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

Format IV - CUMULATIVE LOAD ESTIMATE (Transaction 13)*From Distribution Company to Supplier*

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
1) Detail Record Indicator	MA	1	A/N
2) Settlement Function	MA	1	A/N
3) Load Date	MA	8	DATE
4) Supplier Hourly Loads (Total)	MA	192	A/N

LEGEND

MA = Mandatory OP = Optional N/A = Not Applicable for this Transaction

DATE = CCYYMMDD A/N = Alphanumeric

Transaction 13 - Cumulative Load Estimate - OPTIONAL FIELD USE

No Optional Fields

HEADER RECORD FORMAT

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
1) Header Record indicator	MA	1	A/N
2) Supplier Identifier	MA	10	A/N
3) Distribution Company Identifier	MA	10	A/N
4) File creation date	MA	8	DATE
5) Total Amount Due	MP	11	N2
6) ACH Transfer Date	MP	8	DATE

TRAILER RECORD FORMAT

<u>DESCRIPTION</u>	<u>REQ</u>	<u>SIZE</u>	<u>TYPE</u>
1) Trailer Record indicator	MA	1	A/N
2) Record count	MA	8	N0

LEGEND

MA = Mandatory MP = Mandatory Pay/Adj OP = Optional

DATE = CCYYMMDD A/N = Alphanumeric Nx = Numeric data with implied
decimal point where "x" indicates the number of places to the right of the decimal

Appendix B B Glossary of Terms

Glossary of Terms

ACH Transfer Date: This field will contain the date that the ACH transfer is expected to be deposited to the Supplier's Bank.

Activity Code: This field will contain a code that indicates the following:

0 = Normal On Cycle Bill	5 = No Bill
1 = Cancellation	6 = Estimated On Cycle Bill
2 = Manual Bill	7 = Estimated Off Cycle Bill
3 = Final Bill	8 = Late Read/Late Booked
4 = Off Cycle Bill	

Arrears Interest: The amount of accrued interest charges on any outstanding debt for the account for the Competitive Supplier portion of the bill.

Bill To Address 1: The first address field of data that relates to the Customer's mailing address. This field may contain delivery information such as the mailing street address or a Post Office Box number.

Bill To Address 2: The second address field of data that relates to the Customer's mailing address. This field may contain any additional mailing address delivery information that exceeds the space provided by Bill To Address 1.

Bill To City: The mailing address city name.

Bill To State: The mailing address state name.

Bill To Postal Code: The mailing address Postal Code. This field would contain the Zip Code, and possibly the Carrier Route, if the mailing address is within the U.S.

Bill To Country: The mailing address Country Code, if the mailing address is outside of the U.S.

Billing Cycle: Distribution Companies typically process and bill a portion of their Customers each day. This grouping is the billing cycle. This field indicates what billing cycle the Customer is in. A schedule of billing cycles and dates will be made available to all Competitive Suppliers.

Billing Date: Date on which Distribution Company produced the bill.

Billing Option for the Account: This field will indicate the billing option chosen by the Customer. The Customer can choose either 'Complete' or 'Pass Through' Billing, depending on whether the Customer wishes to receive a separate bill from his Competitive Supplier (Pass Through) or one complete bill (Complete). Possible values are:

C = Complete
P= Pass Through

Complete Billing Option: A billing option available to Customers whereby the distribution and generation charges are combined on one statement rendered by the Distribution Company.

Completion Status: After a set of transactions is processed by the Distribution Company, this field will be used to communicate the status of each detail record. (Valid codes are attached at the end of this appendix).

Current Amount: The current amount billed for the Competitive Supplier for an individual service when there are multiple services per account, or for a single account when there is a single service for the account.

Current Customer Charge: The current Customer charges applied on the Competitive Supplier portion of the bill.

Current Demand Charges: The current billed amount for total demand for the Competitive Supplier portion of the bill.

Current Off Peak Amount: The current billed amount for usage recorded during the Distribution Company's off-peak hours for the service for the Competitive Supplier portion of the bill.

Current Peak Amount: The current billed amount for usage recorded during the Distribution Company's on-peak hours for the service for the Competitive Supplier portion of the bill.

Current Read Date: The date the meter was read. The format of the date is CCYYMMDD.

Current Sales Tax: The current sales tax amount for the service for the Competitive Supplier portion of the bill.

Current Shoulder Amount: The current billed amount for usage recorded during the Distribution Company's shoulder hours for the Competitive Supplier portion of the bill.

Data Exchange: The process of sending and receiving files over a computer network.

Demand Value used by Distribution Company for Billing: This field is used for time-of-use accounts. It is the kW or kV demand use that was used by the Distribution Company to calculate the current demand charges. (Since there are 2 or 3 time-of-use periods, each with demand use, this field tells the Supplier which demand use was used for billing purposes).

Detail Record Indicator: One character that indicates this is a detail record. There may be many detail records in a single file. Valid values are:

E = ENROLL	M = MOVE
D = DROP	U = USAGE
C = CHANGE	B = BILLING and USAGE
P = PAYMENT	A = ADJUSTMENT
S = SETTLEMENT	F = CONFIRM DROP DATE
X = ERROR	

Distribution Company Account Number: The identifier used by the Distribution Company to uniquely identify their Customer. The Competitive Supplier must include the Distribution Company account number in all electronic communications with the Distribution Company

Distribution Company Customer Name: For residential Customers, this field will contain the first four characters of the Customer's *last* name as it appears on the bill. For commercial and

industrial, this field will contain the *first* four characters of the company's name as it appears on the bill.

Distribution Company Identifier: This is the Distribution Company's Dunn & Bradstreet number.

Distribution Company Rate Code: The rate code assigned by the Distribution Company to identify the category of service Supplied to the Customer.

EDI: Electronic Data Interchange B a standardized set of business transactions for electronic commerce defined by the ANSI x.12 EDI transaction set.

EDI Translator: A computer program that converts electronic transactions to/from EDI format.

Effective date of service and load requirements - assigned by the Distribution Company: This date will normally be the next scheduled cycle meter-read date. It tells the Competitive Supplier the date that they are responsible for load, or in the case of a drop, the date they end being responsible for load.

File Creation Date: This is the date the file was created.

Header Record Indicator: One character that indicates this is a header record.

Indication of the Applicability of Sales Tax: Field to indicate whether sales tax is being applied to the service or not. Possible values are:

Y = Sales Tax Applicable

N = No Sales Tax Applicable

SPACE = No Sales Tax Applicable

Load Date: The day for which the kWh usage has been calculated by the load estimation system. The format of the field is: CCYYMMDD.

New Distribution Company Account Number: In certain circumstances the Distribution Company must change a Customer's account number. This field will be used to identify the new account number.

New Distribution Company Service Identifier: In certain circumstances the Distribution Company must change a Customer's service (i.e. replacement meter). This field will be used to identify the new service identifier.

New Distribution Company Customer Name: In certain circumstances the Distribution Company must change the Customer's name (i.e. marriage). This field will be used to notify the Competitive Supplier of the first four characters of the Customer's new name.

Net Dollars: This field will contain the total of the Payment/Adjustment amount field for the Supplier.

Number of Non-Metered Units: Number of billable units pertaining to the value listed in the type of service indicator field.

Off Cycle Reading Date: The date the meter reading was obtained or estimated on a date other than the normal scheduled meter reading date. The Off Cycle reading process requires prior agreement with the Distribution Company as all Distribution Companies do not offer Off Cycle

reading. The format of the date is CCYYMMDD.

Off Cycle Reading Indicator: One character that indicates whether an Off Cycle reading is, or will be, an actual or estimated reading. Off Cycle reading requests require prior agreement with the Distribution Company as all Distribution Companies do not offer Off Cycle reading. Valid values are:

A = Actual Reading

E = Estimated Reading

Off Peak Demand: The highest demand measured in kilowatts during the Distribution Company's off-peak hours.

Off Peak KVA Demand: The highest kV demand measured during the Distribution Company's off-peak hours

Off Peak Kilowatt Hour Usage: The total kilowatt hour use during the Distribution Company's off-peak hours.

Passthrough Billing Option: A billing option available to Customers whereby the distribution and generation charges are billed separately.

Payment/Adjustment Amount: The amount that was posted to the Customer's account for the Competitive Supplier portion of the bill.

Payment/Adjustment Code: This field will contain a code that identifies the record's function.

- 001 = Payment received from the Customer
- 002 = Transfer
- 003 = Bad Check
- 004 = Arrears Interest
- 005 = Sales Tax
- 006 = Adjustment
- 007 = Supplier Write-Off
- 008 = Low Income Guarantee

Payment/Adjustment Posting Date: The date the payment amount was posted to the Customer's account for the Competitive Supplier portion of the bill.

Peak or Highest kW Demand: For non-time-of-use meters, this will contain the actual highest demand measured in kilowatts. For time-of-use meters, it is the highest demand measured in kilowatts during the Distribution Company's on-peak hours.

Peak KVA Demand: The actual peak demand measured in kilovolt-amperes during the Distribution Company's on-peak hours.

Peak or Total Kilowatt Hour Usage: For non-time-of-use meters, this is the total kilowatt hour usage for the billing period. For time-of-use, it contains the total kilowatt hour use during the Distribution Company's on-peak hours

Previous Read Date: The date the meter was last read. The format of the date is CCYYMMDD.

Primary Metering Indicator: The indicator telling the Supplier that the Distribution Company has metered Customer's service at primary voltage.

- N = No Primary Metering
- Y = Primary Metering
- SPACE = No Primary Metering

Record Count: This is the number of detail records contained in this transmission.

Service Identifier: Some systems offer multiple types of services to a particular account. A Competitive Supplier may wish to offer different prices for the different service types. This field will be used in conjunction with the Type of Service Indicator to identify the specific service referenced by the transaction (it typically contains a meter number or an unmetered rate depending on the type of service).

Settlement Function: Single character on settlement record indicating the type of supply service included in the record. The values for the field are:

- C = Competitive Supply
- D = Default Service
- O = Standard Offer

Shoulder kW Demand: The shoulder demand measured in kilowatts.

Shoulder KVA Demand: The total shoulder demand measured in kilovolt-amperes.

Shoulder Kilowatt Hour Usage: The total shoulder kilowatt hour usage.

Special Identifier: A four character field that will be used to identify *special conditions* such as customers' of private or public aggregators.

Supplier Account Number: The identifier assigned by the Competitive Supplier to identify their account. Competitive Suppliers should use this field to *uniquely* identify their Customers.

Supplier Arrears: The amount of outstanding debt due the Competitive Supplier for this account.

Supplier Hourly Loads (Total): The total Supplier hourly loads for which a Competitive Supplier has supply responsibility as reported to ISO New England by the Distribution Company. This field will contain kWh use in each of the 24 daily hours. The aggregate hourly loads will be reported separately for Supplier-enrolled Customers as well as for Customers who have not chosen a Competitive Supplier and are paying for their electricity supply via the Standard Offer or Default Service, and for which that Competitive Supplier has been contracted by the Distribution Company to meet those supply requirements.

Supplier Identifier: This is the Supplier's Dunn & Bradstreet number.

Supplier Pricing structure maintained by the Distribution Company: The price point that the Customer will be charged for electric service within a particular rate class. Each Competitive Supplier rate class can support many price points.

Supplier Rate Code: The rate code assigned by the Competitive Supplier to identify the category of service supplied to the Customer. Must be consistent with a Distribution Company's existing tariff.

Total ACH Transfer: If the total Supplier credits is greater than the total Supplier debits, this field will contain the total of the Supplier dollars that are being transmitted via ACH. Otherwise, this field will contain zeros.

Total Amount Due: If the total Supplier debits is greater than the total Supplier credits, this field will contain the total amount that is owed to the Distribution Company within the trailer record. Otherwise, this field will contain zeros.

Total Amount Due Supplier: This is a summation of all current charges, arrears interest and arrears for this account within the Usage/Billing Record.

Total Supplier Credits: This field will contain the total of all the cash payments, and cash Supplier credit transactions.

Total Supplier Debits: This field will contain the total of all the cash Supplier debit transactions.

Trailer Record Indicator: One character to indicate that this is a trailer record.

Type of Service Indicator: Used to identify the type of service. Possible options are:

C = Combined Service (multiple meters)

D = Metered Service Demand & kWh

E = Metered Service kWh

H = Controlled Hot Water

L = Lighting Service

N = Non-Metered Service

T = Metered Service TOU

O = Metered Service TOU - On Peak

F = Metered Service TOU - Off Peak

A = Apply to All Services

Field	Value	Definition
Completion Status Code (C.S.C.)		
1st character of C.S.C.	1	Administrative Format
	2	Usage & Billing Format *
	3	Payments & Adjustments Format *
	4	Load Settlement Format *
	5	Header Format
	6	Trailer Format
2nd & 3rd character of C.S.C.	00	Successful Transaction
	01	Invalid Detail Record Indicator
	02	Invalid Supplier Account Number
	03	Invalid Distribution Company Account Number
	04	Invalid Distribution Company Customer Name
	05	Invalid Code Identifying Function of Record
	06	Invalid Effective Date of Service & Load Request
	07	Invalid Billing Option
	08	Invalid Disco Rate Code
	09	Invalid Supplier Rate Code
	10	Invalid Supplier Pricing Structure
	11	Invalid Type of Service Indicator
	12	Invalid Service Identifier
	13	Invalid Billing Cycle
	14	Invalid Sales Tax Indicator
	15	Invalid Off Cycle Reading Indicator
	16	Invalid Off Cycle Reading Date
	17	Invalid New Distribution Company Account Number
	18	Invalid New Service Identifier
	19	Invalid Activity Code
	20	Invalid Current Read Date
	21	Invalid Previous Read Date
	22	Invalid Primary Metering Indicator
	23	Invalid Peak or Total kWh Usage
	24	Invalid Peak or Total KW Demand
	25	Invalid Peak KVA
	26	Invalid Off Peak kWh
	27	Invalid Off Peak Demand

- 28** Invalid Off Peak KVA
- 29** Invalid Shoulder kWh Usage
- 30** Invalid Shoulder Demand
- 31** Invalid Shoulder KVA
- 32** Invalid Demand Used by DISCO for Billing
- 33** Invalid Number of Non-Metered Units
- 34** Invalid Billing Date

- 35** Invalid Current Amount
- 36** Invalid Current Peak Amount
- 37** Invalid Current Off Peak Amount
- 38** Invalid Current Shoulder Amount
- 39** Invalid Current Demand Charges
- 40** Invalid Current Customer Charge
- 41** Invalid Current Sales Tax Amount
- 42** Invalid Arrears Interest
- 43** Invalid Supplier Arrears
- 44** Invalid Total Amount Due Supplier
- 45** Invalid Payment/Adjustment Posting Date
- 46** Invalid Payment/Adjustment Amount
- 47** Invalid Load Date
- 48** Invalid Supplier Hourly Loads (Total)
- 49** Invalid Supplier Hourly Loads (Estimated)
- 50** Invalid Supplier Hourly Loads (Telemetered)
- 51** Invalid Supplier Hourly Loads (Standard Offer)
- 52** Invalid Supplier Hourly Loads (Default Service)
- 53** Invalid Supplier ID
- 54** Invalid Distribution Company ID
- 55** Invalid Transmission Date
- 56** Invalid Bill Cycle Date
- 57** Invalid ACH Transfer Date
- 58** Invalid Record Count
- 59** Invalid Net Dollars
- 60** Invalid Total Supplier Credits
- 61** Invalid Total Supplier Debits
- 62** Invalid Total ACH Transfer
- 63** Invalid Total Amount Due
- 64** Customer Already Enrolled
- 65** Supplier on probation

- 66** Related Transaction failed
- 67** Customer Already Enrolled for This Supplier
- 68** Invalid Completion Code
- 69** Invalid New Distribution Company Customer Name
- 70** Invalid Special Identifier
- 71** Invalid Bill To Address 1
- 72** Invalid Bill To Address 2
- 73** Invalid Bill To City
- 74** Invalid Bill To State
- 75** Invalid Bill To Postal Code
- 76** Invalid Bill To Country
- 77** Invalid Customer Status

* Denotes values not currently being used

Appendix C B Training Standards

***IMPLEMENTING CUSTOMER CHOICE
SUPPLIER WORKSHOP***

(UTILITY HOST)
(WORKSHOP LOCATION)
(WORKSHOP DATE)

8:00-9:00am Breakfast

9:00-9:30 Welcome

9:30-10:15 Regulatory Framework and Update

**10:15-11:00 Defining the Business Relationship Between Utilities and
Suppliers *Introducing the MDTE Terms and Conditions***

11:00-11:15 Break

11:15-12:00 Retail Choice Implementation

ic Business Transaction Standards

Technical Sessions

12:00-1:00 Lunch

1:00-1:30 Billing Options

1:30-2:00 Electronic Data Interchange

2:00-2:30 Telemetry Alternatives

2:30-3:00 Load Profiling and Estimation

3:00-3:30 ISO-New England*

3:00-4:00 Questions and Answers; Wrap-up

***OPTIONAL PRESENTATION DEPENDANT ON ISO-NE SPEAKER AVAILABILITY**

SUPPLIER GUIDE

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- I. Introduction to Supplier Guide
- II. Retail Access Implementation Requirements
 - A. Rules Governing Electric Industry Restructuring (220 CMR 11)
 - B. MDTE Model Terms and Conditions
 - C. Electronic Business Transaction Standards (EBTS)
- III. Supplemental Materials
 - A. Web Site Information
 - 1. Utility Tariffs
 - 2. Utility Meter Read Schedules
 - 3. Utility Electronic Interchange Operating Schedules
 - 4. Utility Class Average or Segment Load Shapes
 - 5. Utility Contacts
 - 6. Supplier Training Schedule
 - 7. Utility Holiday Schedule
 - B. Contact Information
 - 1. MDTE
 - 2. NEPOOL/ISO-NE
 - 3. Utility Contacts Summary
 - 4. Utility Service Territory
 - 5. Utility Corporate Description
 - C. Supplier Registration
 - 1. State Regulatory Agencies
 - 2. NEPOOL/ISO-New England
 - 3. Supplier Training Attendance

4. Service Agreements
5. Communications/Testing

- D. Billing
 - 1. Required Billing Information
 - 2. Meter Reading
 - 3. Rate Structures
 - 4. Billing Options
 - 5. Cash Posting
 - 6. Account Resolution and Supplier Write Offs
 - 7. Special Situations
 - 8. Revenue Protection
- E. Load Estimation Systems
 - 1. General Overview
 - 2. "Own Load" Reporting Schedule
 - 3. Distribution Companies' System
- Descriptions
- F. Telemetry
 - 1. Overview
 - 2. Telemetry Options
 - 3. General Procedures
- G. Information Exchange
 - 1. Electronic Business Transactions
 - 2. E.D.I. Guidelines
 - 3. E.D.I. Implementation
 - 4. Electronic Data Transmittals
 - 5. Alternate Transport Options
 - 6. Computer Operations
 - 7. Testing Requirements
- H. E.D.I. Appendices
 - 1. E.B.T. Data Formats
 - 2. E.B.T. Glossary
 - 3. E.D.I. Implementation Guidelines
 - 4. Compliance Test Standards

5. Compliance Test Conditions
6. Change Control Process

B. Contacts¹

- A. Boston Edison
- B. Commonwealth/Cambridge Electric
- C. Eastern Edison
- D. Massachusetts Electric Company/Nantucket Electric
- E. Western Massachusetts Electric

¹To include: utility description, service territory map, and contacts

INTRODUCTION TO SUPPLIER GUIDE

Statement of Purpose

This Supplier Guide has been assembled to communicate essential information to Competitive Suppliers (Suppliers) about participating in Retail Choice opportunities in Massachusetts. The purpose of this Guide is simple - it is intended to describe proactively how the five investor owned utilities² (Joint Utilities) are implementing Retail Choice on behalf of Massachusetts consumers, thereby enabling Suppliers to enter the market, sell electric power, and operate without unnecessary interference.

Retail choice of an electricity Supplier is new and unprecedented in Massachusetts, and this has obvious implications for Joint Utility Companies and Massachusetts consumers, as well as Suppliers. Suppliers must be registered and certified by regulatory commissions, Customer enrollment with new Suppliers must be handled with high assurance to avoid potential confusion, and the Customer loads served by every Supplier must be metered or estimated on a daily basis for reporting to the ISO-New England in order for their settlement process to occur in a timely manner. Many Distribution Company business processes have been modified from past practice or designed from scratch to insure that the requirements being created by competitive electricity supply are handled correctly and efficiently.

This Guide summarizes key processes and communication protocols that must be understood and implemented by Suppliers and Distribution Companies in order for Retail Choice to work smoothly and for the benefits of the new, competitive market to be fully realized by both consumers and Competitive Suppliers.

For additional information or any questions, please contact the Massachusetts Department of Public Utilities (MDPU) or any of the Massachusetts Joint Utility Companies.

²Boston Edison Company, Commonwealth/Cambridge Electric, Eastern Edison Company, Massachusetts/Nantucket Electric Companies, and Western Massachusetts Electric

Appendix D B Testing Standards

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Introduction

The purpose of the EBT Test Plan is to provide a standardized set of test conditions that Competitive Suppliers and Distribution Companies will use to verify their customer transactions and EDI interface. Each Supplier and Distribution Company must successfully execute the test plan before the Supplier will be allowed to enroll customers with the Distribution Company.

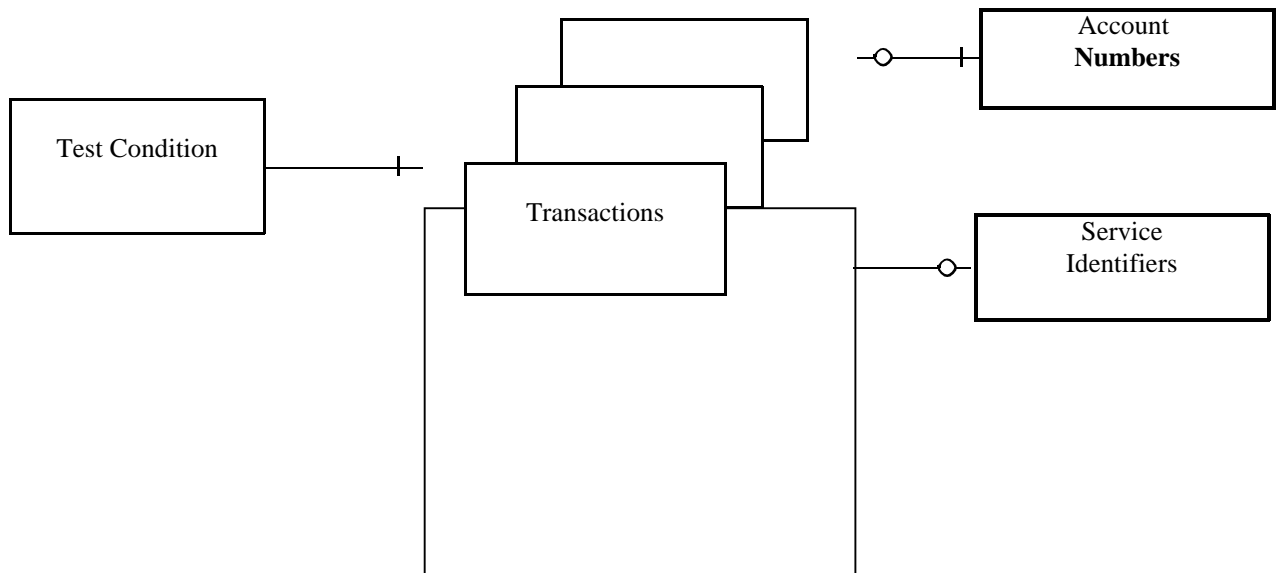
The test plan is not intended to exercise every conceivable transaction condition, but it will cover the most common scenarios and enough error conditions to demonstrate basic error handling. The test plan cannot anticipate limitations that exist within trading partners' systems, so trading partners may agree to perform additional testing or to add/modify transactions in order to cover special conditions. The test plan is not a substitute for internal testing of trading partners' systems. Each trading partner should conduct thorough testing of their internal systems to ensure that all transaction processing is accurate.

Test Constraints

There are certain transactions that cannot be fully tested in the context of this plan because they require special handling and/or the involvement of a third party. These transactions can be generated by the test, but they can only be verified by manual inspection and should not be transmitted. Specifically, these transactions are:

1. Settlement (there is no standard transmission mechanism at this time)
2. EDI 820 (transfer of funds)
3. Successful Enrollment (notification of switch sent to current supplier)
4. Successful Enrollment (notification of switch sent to default provider; does not apply to all companies)

Test Plan Structure



Test Condition Descriptions

This worksheet describes each test condition and assigns it a reference number. The reference number is in the format X-999 where 'X' indicates the transaction category and '999' is a unique reference number within the transaction category.

Transaction Categories are:

- A (Account Administration - Format I)
- B (Usage and Billing - Format II)
- C (Payments and Adjustments - Format III)
- D (Settlement - Format IV)

The test simulates processing dates of 07/02/98 - 08/25/98. Test enrollment transactions are intended to take effect after the simulated July 1998 scheduled reading (the workbook includes a cycle calendar). The dates used for the test have no relationship to the actual date of customer choice, and the cycle schedule does not necessarily correspond with any Disco cycle numbers or schedules.

Presentation of Test Transactions

The test transactions are documented in an Excel workbook. There are two presentation layouts: one with descriptive information and one that represents the actual transaction file contents (these are in "EBT format", not "EDI format").

Descriptive Layout

Transactions are grouped by Transaction Category (Format I, Format II, etc.). The Transaction Type indicates the specific action to be taken for those Transaction Categories that have multiple transactions. Each transaction has a reference to one Test Condition and a Sequence Number (in case there are multiple transactions required to set up or fulfill a Test Condition).

The Sequence Number must be used in context with the Transaction Type and File ID to determine both the order of transactions in a file, the direction of the transaction (ES > DS, DS > ES), and the timing of transactions (day one, day two).

Shaded fields within a transaction indicate that these elements are not filled in for this transaction.

File Layout

There are six of these worksheets (one for each test file - see next section).

Transactions are grouped and ordered according to test condition requirements. Headers and trailers are included. There is no descriptive information, just the transaction data.

Test File Processing

A total of six transaction sets (files) are needed to complete the test:

File ID	Simulated Date	Description
1A	7/2/98	1 st file from supplier to Disco. Contains Enrollments.
1B	7/6/98	Disco's response to file 1A.
2A	7/6/98	2 nd file from supplier to Disco. Contains Changes, Drops and more Enrollments.
2B	7/7/98	Disco's response to file 2A plus Changes, Moves and Drops.
3B	8/10/98	From Disco to supplier. Usage and Billing records for August cycle 6.
4B	8/25/98	From Disco to supplier. Payments and Adjustments.

The supplier may transmit files 1A and 2A without waiting to receive the first file from the Disco. The Disco will process File 1A and 2A as if they were actually transmitted on two separate days. A complete test cycle can typically be completed in two days, assuming no problems.

Account Number Tables

Each transaction contains the Distribution Company Account Number and the Supplier Account Number. Since the actual account numbers are not known at this time, the test transaction account numbers have been arbitrarily assigned. A translation table for each company will have to be developed to replace the test script account numbers with "real" account numbers. The Account Number Tables have been provided as a template for this. Note that a given account may be used in more than one test condition.

Service Identifier Table

Where the Service Identifier (i.e., meter number) is used, a translation table for each company will have to be developed to replace the test script Service Identifier with "real" ids (meter number, rate code, etc.). The Service Identifier Table is provided as a template for this.

Optional Fields

The distribution companies have documented their unique requirements as optional fields. This information is included in Appendix A of the EBT Report dated October 10, 1997. Trading partners will have to work together to ensure that adequate testing of optional fields is performed.

File Headers and Trailers

Specific test conditions covering File Headers and Trailers are not necessary. These EBT record types do not directly translate to EDI format. Refer to EDI Implementation Guidelines for specific information about mapping Header and Trailer data to EDI segments.

Test Systems

Each distribution company and supplier must develop a test environment to comply with this test plan. These test systems will likely evolve as time goes on (more automation, enhanced features, etc.). Data used for testing (customer names, rates, etc.) should match that presented in the enclosed worksheets, or necessarily be coordinated between trading partners. The initial versions of the test systems must meet these minimum requirements (follow the sequence numbers):

Supplier Test System	Disco Test System
1. Generate test transactions (File 1A and 2A) from pre-established test database	4. Receive suppliers' test files
2. Translate test transactions into EDI format (814)	5. Convert from EDI to internal format
3. Transmit files to Discos	6. Validate transactions against a pre-established test customer database; generate appropriate internal results
10. Receive Disco test files 1B and 2B	7. Generate test transactions (File 1B and 2B)
11. Convert from EDI to internal format	8. Translate test transactions into EDI format (814, 810, 820)
12. Process transactions and/or resolve errors for appropriate internal results	9. Transmit files to supplier
14. Receive Disco test files 3B and 4B	13. Transmit files 3B and 4B to supplier
15. Convert from EDI to internal format	
16. Process transactions and/or resolve errors for appropriate internal results	

EBT Testing Procedure

This procedure provides Suppliers and Utility Distribution Companies (UDC) with a guide to initiating and successfully completing the EBT Test Plan. This procedure is to be followed for each UDC with which the Supplier wants to test and/or enroll customers.

Successful completion of the Test Plan is required before the UDC will accept enrollment transactions from the Supplier.

Step by Step

1. The Supplier representative (either the Business Contact or Technical Contact) must contact the person identified as the Business Contact for the UDC with which testing is to be conducted. This contact must be made at least two weeks before test files are transmitted to the UDC. The two week lead time is so the Supplier has time to work with the UDC Business Contact to establish the following:
 - 1) A mutual understanding of the Test Plan conditions and requirements (refer to EBT Test Plan)
 - 2) Test rates and pricing structures in the UDC test system
 - 3) Test mailboxes and passwords or alternate method of file exchange
 - 4) Specific test data (customer account numbers, utility-specific conditions and options, dates, etc.)
 - 5) Schedule for transmitting test data and conducting the test(s) B see Attachment 1
2. Supplier transmits test files in EDI format (see EBT EDI Implementation Guide) according to the schedule. Supplier notifies the UDC Business Contact when files have been transmitted. The UDC Business Contact or Technical Contact will provide prompt notification of any problems encountered with the input files.
3. The UDC will process Supplier input files and send result files according to the schedule. Supplier should process each file through its test record keeping system according to the test schedule. Promptly notify the UDC Business Contact of any problems.
4. The Business Contact and Technical Contact for each party will review the results of their individual test system processing cycles. This review will ensure 1) that test results are consistent with internal requirements, 2) that the intent of the EBT Test Plan is fulfilled, and 3) that any deviations from the expected results are legitimate and do not jeopardize the quality of the test.
5. The test is considered to be completed successfully when the Business and Technical Contacts for both the Supplier and UDC sign off on the test results. The test can be rescheduled and rerun as many times as necessary to provide the reviewers with the confidence to sign off. The Business Contact for each party should keep a record of the test acceptance (paper/fax or electronic) B see Attachment 2.

EBT Test Procedure Attachment 1: Sample Testing Schedule

The following schedule assumes that all preliminary tasks identified in Step 1 of the EBT Testing Procedure have been completed. The duration of the test can be adjusted to suit the needs of trading partners, but the test should be contiguous (start to finish) with successful completion of all intermediate steps. Unsuccessful completion of an intermediate step should generally result in the entire test being rescheduled and rerun.

Day 1: Supplier transmits Files 1A and 2A to UDC.
UDC receives Files 1A and 2A.

Day 2: UDC processes File 1A.
UDC reviews results of File 1A processing.
UDC sends File 1B.
Supplier receives File 1B.

Day 3: Supplier processes File 1B.
Supplier reviews results of File 1B processing.
UDC processes File 2A.
UDC reviews results of File 2A processing.
UDC sends File 2B.
Supplier receives File 2B.

Day 4: Supplier processes File 2B.
Supplier reviews results of File 2B processing.
UDC sends Files 3B and 4B.
Supplier receives Files 3B and 4B.

Day 5: Supplier processes File 3B.
Supplier reviews results of File 3B processing.
Supplier processes File 4B.
Supplier reviews results of File 4B processing

Day 6: Sign-off

EBT Test Procedure Attachment 2: Test Acceptance Form

The undersigned agree that [supplier company] and [UDC] have successfully completed electronic interchange testing on [date].

Subject to finalization of bilateral agreements between [supplier] and [UDC] and fulfillment of all other registration requirements as directed by the Massachusetts Department of Telecommunications and Energy [supplier] may submit customer enrollment transactions electronically to [UDC] beginning on [date].

Supplier Company: _____

Supplier Business Contact Signature: _____

Date of Test Acceptance: _____

Supplier Technical Contact Signature: _____

Date of Test Acceptance: _____

Distribution Company: _____

Distribution Company Business Contact Signature: _____

Date of Test Acceptance: _____

Distribution Company Technical Contact Signature: _____

Date of Test Acceptance: _____

Test Plan Worksheets (Excel)

A	Test Conditions: File Layout
B	Customer Information
C	Generic Bill Cycle Calendar
D	Test Supplier Rate Tables
E	Transaction Detail: Descriptive Layout
E1	Format I Transaction Detail
E2	Format II Transaction Detail
E3	Format III Transaction Detail
E4	Format IV Transaction (No Test Data: Layout Only)
F	Transaction Detail: File Layout
F1	File 1A (From Supplier)
F2	File 2A (From Disco)
F3	File 1B (From Supplier)
F4	File 2B (From Disco)
F5	File 3B (From Disco)
F6	File 4B (From Disco)
G	Disco Account Number Table
H	Supplier Account Number Table
I	Service Identifier Table